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U. S. DEPARTMENT OF AGRICULTURE

Adjusting MARKETING SERVICE PROGRAMS to Changing Conditions

A
Report of the
National Marketing
Service Workshop
at Springfield, Ill.,
November 18, 19, and 20, 1958

UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Marketing Service in cooperation with
State Departments of Agriculture

Washington D. C.

AMS 315

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July 1959

PROGRAM

1958 NATIONAL MARKETING SERVICE WORKSHOP

Theme: ADJUSTING MARKETING SERVICE PROGRAMS TO CHANGING CONDITIONS

Time: November 18, 19, and 20, 1958

Place: Hotel Leland, Springfield, Illinois

Purpose: To study the changes that are taking place in marketing and determine the adjustments that should be made in State marketing service programs to meet these conditions.

Program Committee:

Phillip Alampi, Secretary, New Jersey Department of Agriculture, Trenton, New Jersey

George H. Chick, Deputy Commissioner, Maine Department of Agriculture, Augusta, Maine

Clifton B. Cox, Purdue University, Lafayette, Indiana

Marvin A. Faller, Secretary, Louisiana State Market Commission, Baton Rouge, Louisiana

Jack Gilchrist, Director, Information and Education Division, Georgia Department of Agriculture, Atlanta, Georgia

John Mahoney, Chief, Division of Agricultural Marketing Services, State Board of Agriculture, University of Maryland, College Park, Maryland

John A. Winfield, Director, Division of Markets, North Carolina Department of Agriculture, Raleigh, North Carolina

William C. Crow, L. G. Foster, R. P. Callaway, and E. C. Collins, Liaison, Matching Fund Program, State Departments of Agriculture, AMS, U. S. Department of Agriculture, Washington, D. C.

Work Group Leaders:

Group A - Developing and Operating a Marketing Program in a State Department of Agriculture (for Commissioners of Agriculture and heads of Divisions of Markets) Phillip Alampi, New Jersey Department of Agriculture

Group B - The Use of Publicity in a Marketing Program - Jack Gilchrist, Georgia Department of Agriculture

Group C - Fruits and Vegetables - James E. Youngblood, South Carolina Agricultural Marketing Commission

Group D - Livestock - Clifton B. Cox, Purdue University

Group E - Poultry and Eggs - R. J. Park, Tennessee Department of Agriculture

Group F - Dairy Products - Henderson May, Illinois Department of Agriculture

Group G - Grain - O. W. Faison, North Carolina Department of Agriculture

Tuesday, November 18

8:00 - 9:00 a. m. REGISTRATION

9:00 - 9:30 a. m. OPENING SESSION

Chairman - Hon. Stillman J. Stanard, Director, Illinois Department of Agriculture

Invocation - Wesley Windisch, Chief, Bureau of Markets, Ohio Department of Agriculture

Plans for the Workshop - William C. Crow, Liaison Officer, Matching Fund Program, State Departments of Agriculture, U. S. Department of Agriculture

9:30 - 10:15 a.m. GENERAL SESSION

Chairman - Hon. Phil Campbell, Commissioner, Georgia Department of Agriculture

New Horizons for Marketing Service Programs - Roy W. Lennartson, Deputy Administrator, Agricultural Marketing Service, U. S. Department of Agriculture

10:30 a.m.- 12:15 p.m. MEETINGS OF FIRST WORK GROUPS

Group A - Developing and Operating a Marketing Program in a State Department of Agriculture (for Commissioners of Agriculture and heads of Divisions of Markets)

Topic: WHAT SHOULD AN EFFECTIVE MARKETING PROGRAM CONSIST OF?

Chairman - Hon. Phillip Alampi, Secretary, New Jersey Department of Agriculture, and Chairman of the Marketing Committee of the National Association of State Departments of Agriculture

Secretary - Don E. Wilkinson, Wisconsin Department of Agriculture, Secretary of the National Association of Marketing Officials

Speakers:

Types and Scope of Marketing Activities in Which the States Should Engage - Three viewpoints

1. George H. Chick, Maine Department of Agriculture
2. John A. Winfield, North Carolina Department of Agriculture
3. C. J. Carey, California Department of Agriculture

This work group will consist of State Commissioners of Agriculture, Chiefs of Divisions of Markets, and other persons having administrative responsibility for marketing work in State departments of agriculture. The group will meet all three days to discuss and reach conclusions on what a marketing program should consist of, how it should be organized, and how to make the matching fund marketing service work more effective. The first day will be devoted to a discussion of the various types of marketing activities (service and regulatory) currently being carried on in State departments of agriculture. Conclusions will be reached on the activities that should be included in a well-rounded marketing program of a State. By the end of the day the Secretary of the group will have prepared a list of the activities concerned with marketing which a State Commissioner of Agriculture should have before him in planning the development of his marketing program. Copies of this list will be reproduced overnight for use in the second day's meeting of the work group.

Group B - The Use of Publicity in a Marketing Program

Topic: PUBLICIZING MARKETING INFORMATION

Chairman - Jack Gilchrist, Georgia Department of Agriculture

Secretary - James E. Reynolds, AMS, U. S. Department of Agriculture

Speakers:

The Purpose of a Work Group on Publicity - William C. Crow, Liaison Officer, Matching Fund Program, State Departments of Agriculture, U. S. Department of Agriculture

Improving Dissemination of Market News - Spencer G. Duncan, New York Department of Agriculture and Markets

Publicizing Other Kinds of Marketing Information - Bert Johnson, Information Division, AMS, U. S. Department of Agriculture

This work group, consisting largely of people engaged in marketing information work in State departments of agriculture, will spend three days discussing the use of publicity in improving marketing. The first day will be devoted largely to understanding the types of marketing information available for dissemination and determining how to make the best uses of them. The types of information included will be market news data on supplies and prices, production forecasts, storage holdings, tree counts, information on utilization of products, and information on agricultural outlook. After becoming acquainted with the kinds of information available, the group will shift its attention to the uses that should be made of such data, and the best ways of getting the information to the people who should be using it. The use of charts, exhibits, motion pictures, radio, television, news stories, and special publications as means of disseminating such information will be discussed. An effort will be made to reach conclusions as to the place of information people in this field and how they should work with marketing specialists.

Group C - Fruits and Vegetables

Topic: APPRAISING THE NEED FOR NEW MARKETING FACILITIES AT THE LOCAL ASSEMBLY LEVEL

Chairman - Boyce Dyer, Georgia Department of Agriculture

Secretary - Norman C. Healy, AMS, U. S. Department of Agriculture

Speakers:

Problems to Consider in Organizing New Marketing Agencies and Developing New Assembly Markets - Leon S. Scott, Mississippi Department of Agriculture

Procedural Steps in Developing a New Marketing Organization and Program - James E. Youngblood, South Carolina Agricultural Marketing Commission

The development of new fruit and vegetable areas in a number of States has created problems of providing a marketing organization and developing facilities to market the products. This group will discuss the basic information needed in developing plans, how to obtain it, and how to make use of it in considering the type of organization and facilities which best meet the needs of the producers concerned. Attention will be given to the functions which should be performed by local assembly markets, to the factors to consider in determining the grading and packaging requirements for successful marketing of the product or products, and to the facilities and equipment needed in performing these operations.

Group D - Livestock

Topic: MARKETING IMPROVEMENTS NEEDED TO PROMOTE MEAT-TYPE HOGS AND CATTLE

Chairman - M. Paul Mitchell, Purdue University

Secretary - R. P. Callaway, AMS, U. S. Department of Agriculture

Speakers:

The Canadian Meat-Type Hog Program - H. J. Maybee,Chief, Livestock and Livestock Products Division, Canada Department of Agriculture

Progress of Research in Pointing the Way to Needed Improvements in Marketing Meat-Type Animals and Their Products - Dr. George F. Henning, Ohio State University

Representatives from selected States will describe work underway in their States to improve the marketing of meat-type animals. The group will then discuss changes in the present marketing system needed to reflect consumer preference for lean cuts of pork and beef in prices to producers, such as the development and expanded use of grades at retail outlets based on consumer preference, the merchandising and pricing of pork and beef at retail in accordance with these grades, procurement of live animals by processors to reflect accurately differences in retail value of pork and beef products, and improvement in the services provided by livestock marketing agencies so as to identify and reflect value differences in live animals. After these needed changes are discussed consideration will be given to the courses of action which offer encouraging possibilities for bringing about these changes and what State departments of agriculture can and should do to provide assistance.

Group E - Poultry and Eggs

Topic: CURRENT RESEARCH IN EGG MARKETING

Chairman - Charlie B. Whigham, New Mexico Department of Agriculture

Secretary - Kenneth H. Brasfield, AMS, U. S. Department of Agriculture

Speakers:

Current Developments in Egg Marketing - Dr. James M. Gwin, Ralston Purina, St. Louis, Missouri

Progress in Developing New and Improved Egg Grading Procedures through Quality Control at the Producer Level - Robert Dorsett, AMS, U. S. Department of Agriculture

Getting Adoption of Research Results - T. E. Thomson, Minnesota Department of Agriculture

This group will discuss recent research results in such areas as the mechanization of egg grading and handling operations, the impact of advancing technology and changes in marketing methods on the investment requirements, size of business and managerial skill needed for efficient egg assembly and packing operations, and the development of quality control procedures which may make possible radical changes in candling methods and grade certification practices.

Group F - Dairy Products

Topic: SELF-HELP DAIRY MARKETING PROGRAMS AND MARKETING ORDERS

Chairman - Dr. Gordon M. Cairns, University of Maryland

Secretary - Dr. Louis F. Herrmann, AMS, U. S. Department of Agriculture

Speakers:

Current Problems and Policies in Administering Federal Milk Marketing Orders - H. C. Feddersen, AMS, U.S.Department of Agriculture

Possible Benefits and Limitations of Self-Help Programs in the Dairy Industry - George Max Beal, University of Maryland

Recently there has been renewed interest in self-help plans for the dairy industry. Since dairy marketing specialists from the States are in frequent contact with members of the dairy industry they should have a good understanding of the essential features of milk marketing orders and the various self-help plans which have been seriously proposed, how they would be expected to operate, and the arguments pro and con with respect to their potential effectiveness in stabilizing producer prices. This session has been planned to provide these specialists with an opportunity to discuss these orders and plans and to reach informed opinions concerning their operation.

Group G - Grain

Topic: IMPROVING MANAGEMENT PRACTICES IN OPERATING LOCAL GRAIN ELEVATORS AND FEED MILLS

Chairman - John E. Mahoney, State Board of Agriculture, University of Maryland

Secretary - E. C. Collins, AMS, U. S. Department of Agriculture

Speakers:

Improving Operations of Local Elevators - W. S. Farris, Purdue University

Facility and Equipment Needs for Efficient Grain Handling - B. W. Sadler, Virginia Department of Agriculture

This group will consider the various techniques by which State marketing specialists can assist management of local elevators and feed mills in improving business decisions, office procedures, and the physical handling of the products so as to reduce costs and improve quality.

12:15 - 1:30 p.m. LUNCH

1:30 - 2:15 p.m. GENERAL SESSION

Chairman - Hon. Phillip Alampi, Secretary, New Jersey Department of Agriculture

A Retailer Views the Marketing of Farm Products - W. C. Ferguson, Vice-President, American Stores Co., Philadelphia, Pa.

2:15 - 5 p.m. MEETINGS OF FIRST WORK GROUPS

(Continuation and completion of meetings of the work groups formed at the morning session.)

Wednesday, November 19

8:30 - 9:15 a.m. GENERAL SESSION

Chairman - Hon. J. T. Johnson, Commissioner, West Virginia Department of Agriculture

Marketing Service Programs in Canada - W. C. Cameron, Assistant Director, Marketing Service, Canada Department of Agriculture

9:30 a.m. - 12:15 p.m. MEETINGS OF SECOND WORK GROUPS

Group A - Developing and Operating a Marketing Program in a State Department of Agriculture (for Commissioners of Agriculture and heads of Divisions of Markets).

Topic: HOW TO ORGANIZE MARKETING WORK IN STATE DEPARTMENTS OF AGRICULTURE

Chairman - Hon. Henry Seidel, Assistant Director, Washington State Department of Agriculture

Secretary -Don E. Wilkinson, Wisconsin Department of Agriculture, Secretary of the National Association of Marketing Officials

Speakers:

Organization Charts of Marketing Work in Representative States - Don E. Wilkinson, Secretary of the National Association of Marketing Officials

How Divisions of Markets Can Be Organized to Function More Effectively - Spencer G. Duncan, New York Department of Agriculture and Markets

On the second day this group will concentrate its attention on reviewing the organizational structure of marketing work in State departments of agriculture and determining the most effective organization for conducting a marketing program. An effort will be made to group the marketing activities on the list prepared the previous day into an ideal organization chart. Consideration will be given to the need for having a well trained career man at the head of all marketing work in the State department of agriculture, how to develop and carry out good work plans, and how to achieve greater coordination among the persons engaged in various types of marketing work. The need for continuity of service of marketing specialists will be examined.

Group B - The Use of Publicity in a Marketing Program

Topic: PUBLICITY AS A MEANS OF EXPANDING MARKET OUTLETS

Chairman - Hon. Phillip Alampi, Secretary, New Jersey Department of Agriculture

Secretary - James E. Reynolds, AMS, U. S. Department of Agriculture

Speakers:

Function of An Advertising Agency in Promoting Sales of Farm Products - Alden R. Grimes, Campbell-Mithun, Inc., Minneapolis, Minnesota

Obtaining the Cooperation of Informational Media in Conducting Promotional Programs - John L. Matheson, New York Department of Agriculture and Markets

Effectiveness of Various Types of Publicity Materials in Conducting Promotions - John L. Rainey, Pennsylvania Department of Agriculture

This session will deal with the use of paid advertising and other types of publicity in moving temporary surpluses and expanding outlets for farm products. Examples of uses that States have made of each of these forms of publicity will be described. Whether or not there is a place for advertising in our promotional programs will be discussed along with the way of financing advertising and of measuring its results. The discussion of advertising will be completed by noon. In the afternoon attention will be given to other methods that can be used in reaching potential buyers and consumers with information about the quantities, qualities, and locations of products needing sales promotional assistance; how to organize a promotional effort; and the type of publicity material best adapted for dissemination through each publicity medium. The relation between State efforts to expand outlets and the Plentiful Foods Program of the U. S. Department of Agriculture and the need for collaboration between the marketing specialist and the information specialist in conducting work in this field will be discussed.

Group C - Fruits and Vegetables

Topic: ORGANIZING AND FINANCING MARKETING AGENCIES

Chairman - Dr. N. K. Ellis, Purdue University

Secretary - Norman C. Healy, AMS, U. S. Department of Agriculture

Speakers:

The Principles of Sound Business Organization and Financing as Applied to Local Fruit and Vegetable Marketing Agencies - Dr. Robert C. Kramer, Michigan State University

Improving the Effectiveness of Local Marketing Agencies - C. Harold Bray, Kentucky Department of Agriculture

This group will discuss the various elements that should enter into determining the most desirable organizational structure and method of financing for a local business designed to market fruits and vegetables. Consideration will be given to such factors as the services which the business should provide, area to be served, method of payment for products acquired, sales policy, capital required for efficient operation, method of acquiring equity capital, requirements for and sources of borrowed capital, and manner of distributing ownership interest in the business. The session will include an analysis of the proper steps and their logical sequence in organizing the business and how to develop the information needed in evaluating the various factors which need to be considered. These subjects have application to the reorganization and refinancing of a going business and to the consolidation of existing firms to provide more efficient marketing services. In many instances the marketing problem at the local level is not the lack of a marketing organization but the inability or failure of existing firms to provide the kinds of services needed at minimum cost and to attract business from large volume purchasers.

Group D - Livestock

Topic: POTENTIAL DEVELOPMENTS IN LIVESTOCK MARKETING

Chairman - Leo P. Brown, Minnesota Department of Agriculture

Secretary - R. P. Callaway, AMS, U. S. Department of Agriculture

Speakers:

Appraisal of the Changing Livestock Marketing Structure - Dr. Elmer Kiehl, University of Missouri

Adjusting Livestock Grading Programs to Meet Changing Marketing Conditions - C. P. McClaugherty, Virginia Department of Agriculture

This session will be devoted to such subjects as the current picture and trends in livestock marketing patterns, the impact of the growth of direct marketing on the pricing efficiency of the livestock marketing structure, the decentralization of packinghouse operations, the development of more satisfactory grades for live animals and wholesale and retail cuts, and the effect of changing methods upon the nature and sources of marketing information needed by the livestock industry, and upon types and location of marketing facilities needed. Against this background the work group members will consider the kind of livestock marketing program State departments of agriculture should conduct to encourage marketing improvements in this field.

Group E - Poultry and Eggs

Topic: THE POULTRY INSPECTION PROGRAM

Chairman - Ralph D. Germany, Louisiana Department of Agriculture

Secretary - Kenneth H. Brasfield, AMS, U. S. Department of Agriculture

Speakers:

Problems and Policies in Administering the Poultry Inspection Act, Dr. Raymond D. Wenger, AMS, U. S. Department of Agriculture

Improving Efficiency When Remodeling to Meet Poultry Inspection Requirements - Kenneth H. Brasfield, AMS, U.S. Department of Agriculture

In this session poultry marketing specialists from the State will be brought up to date on developments in regard to mandatory inspection of poultry for wholesomeness. Following the discussion of this subject they will have the opportunity to consider what types of assistance they can and should provide operators of poultry slaughtering plants within their States who wish to qualify under the Federal Act. A period also will be set aside for an analysis of the probable effects of the Federal program upon operators who elect to confine their sales to intrastate channels of trade and a discussion of the extent to which State poultry inspection laws and regulations should be standardized and brought into harmony with the Federal Act.

Group F - Dairy Products

Topic: HOW TO INCREASE THE USE OF MILK AND DAIRY PRODUCTS IN YOUR STATE

Chairman - Harold O. Clark, Vermont Department of Agriculture

Secretary - Dr. Louis F. Herrmann, AMS, U. S. Department of Agriculture

Speakers:

Recent Research Findings on the Effectiveness of Promotional Programs in Expanding Outlets for Milk and Dairy Products - George H. Goldsborough, AMS, U. S. Department of Agriculture

How to Improve Dairy Products Promotion Programs - Shelby A. Robert, Jr., Market Research Director, American Dairy Association, Chicago, Illinois

This group will discuss the results of recent research in measuring the effectiveness of various promotional and merchandising techniques in increasing sales of milk and dairy products and show how these findings can be used to redirect and improve the work being done in this field by State departments of agriculture. The research reviewed will be with respect to the effectiveness of in-store promotions employing point-of-sale material and special display designs, area or city-wide promotions utilizing a combination of publicity and improved merchandising techniques, merchandising methods, training for dairy route salesmen, and saturation level distribution of milk vending machines at locations suited to this method of merchandising.

Group G - Grain

Topic: INSTALLING AERATION SYSTEMS IN GRAIN ELEVATORS

Chairman - Fred P. Johnson, North Carolina Department of Agriculture

Secretary - E. C. Collins, AMS, U. S. Department of Agriculture

Speaker:

Installing Aeration Systems in Commercial Grain Storages - Leo E. Holman, AMS, U. S. Department of Agriculture

The purpose of this session is to give marketing specialists in grain areas the information they need to work with all kinds of grain storage firms in installing and using aeration systems in maintaining the quality of grain. The session will be devoted to getting an understanding of how to install aeration systems in flat and upright storages for grain of all types, including dry beans. The variations in requirements for the different grains and in different parts of the country will be explained. The costs of installing and operating such systems will be examined and the benefits to be derived from them ascertained.

12:15 - 1:30 p.m. LUNCH

1:30 - 2:15 p.m. GENERAL SESSION

Chairman - Hon. Roy Freeland, Secretary, Kansas Board of Agriculture

What the Consumer Wants - J. Stevens Stock, J. Stevens Stock Research Co., New York City

2:15 - 5 p.m. MEETINGS OF SECOND WORK GROUPS

(Continuation and completion of meetings of the work groups formed at the morning session.)

6:30 p.m. BANQUET

Toastmaster - Hon. L. Y. Ballentine, Commissioner, North Carolina Department of Agriculture

Entertainment

Working With People - Harry Bowser, Sales Development Manager, Dairipak Butler Inc., Cleveland, Ohio

Thursday, November 20

8:30 - 9:15 a.m. GENERAL SESSION

Chairman - Hon. Dan J. Carey, Commissioner, New York Department of Agriculture and Markets

The Effects of Integration on Marketing Agricultural Products - Dr. Joseph G. Knapp, Administrator, Farmer Cooperative Service, U. S. Department of Agriculture

9:15 a.m. -
12:30 p.m. MEETINGS OF THIRD WORK GROUPS

Group A - Developing and Operating a Marketing Program in a State Department of Agriculture (for Commissioners of Agriculture and Heads of Divisions of Markets.)

Topic: SCOPE AND PROBLEMS INVOLVED IN CONDUCTING MATCHING FUND MARKETING SERVICE PROGRAMS

Chairman - Hon. George H. Chick, Deputy Commissioner, Maine Department of Agriculture

Secretary - Don E. Wilkinson, Wisconsin Department of Agriculture, Secretary of the National Association of Marketing Officials

Speakers:

Problems Encountered by the States in Operating a Matching Fund Program - Hon. Ben J. Butler, Commissioner, Kentucky Department of Agriculture

Scope and Shortcomings of the Matching Fund Program - William C. Crow, Liaison Officer, Matching Fund Program, AMS, U. S. Department of Agriculture

Improvements Needed in Administrative Procedures - William C. Crow, Liaison Officer, Matching Fund Program, AMS, U. S. Department of Agriculture

On the third day this group's discussion will be restricted to the matching fund marketing service program. Attention will be given to the potentials of such a program, its usefulness, and the problems involved in getting the most out of it; the opportunities of using this program as a means of developing a well-rounded marketing division; ways of developing projects to solve marketing problems in a State; the need for coordination of research, service and educational work in dealing with a marketing problem; methods of selecting and training personnel; the need for working closely with industry, farm and other groups in developing and conducting the program; and to the types of assistance States need from Washington and from other States. Consideration will also be given to administrative procedures such as handling project statements, work plans, and reports on work done; ways of simplifying accounting problems; and limitations on uses of funds.

Group B - The Use of Publicity in a Marketing Program

Topic: INFORMING THE PUBLIC ABOUT MARKETING IMPROVEMENTS AND PROGRAMS

Chairman - R. T. Williams, Texas Department of Agriculture

Secretary - James E. Reynolds, AMS, U. S. Department of Agriculture

Speakers:

How Publicity Can Aid in Bringing About the Adoption of Marketing Improvements - W. P. Charron, Maine Department of Agriculture

Selling Your Marketing Program to the Public - Hon. Richard D. Chumney, Assistant Commissioner, Virginia Department of Agriculture

Research agencies and State marketing service people are constantly developing improvements in marketing. Examples are improved methods of packaging, handling, and transporting; better methods of grading; ways of reducing deterioration and spoilage; how to improve facilities; handling equipment and methods that will reduce costs; and ways of meeting regulatory requirements. The marketing specialist in the service field shows individual operators how to adopt these improvements, but the right kinds of publicity through articles, special publications, movies, etc., would intensify interest in these changes and hasten their adoption. State departments of agriculture generally have been negligent in informing the public of the nature and benefits of the marketing work they are doing. This work group will divide its time on the third day between a discussion of the use of publicity to bring about marketing improvements and how to present to the public an effective story on the State's marketing program. The techniques, methods, and problems involved in accomplishing these objectives will be considered, along with the need for a closer working relationship between the information specialist and the groups and agencies concerned with marketing.

Group C - Fruits and Vegetables

Topic: ASSISTING MANAGEMENT IN IMPROVING OPERATING EFFICIENCY

Chairman - Ruel R. Hindman, Illinois Department of Agriculture

Secretary - Norman C. Healy, AMS, U. S. Department of Agriculture

Speakers:

Industrial Engineering Techniques and Their Application to Fruit and Vegetable Handling and Preparation for Market - Robert K. Bogardus, AMS, U. S. Department of Agriculture

Using Cost Data to Increase Plant Efficiency - E. C. Garland, Virginia Department of Agriculture

This group will discuss cost analyses of plant operations for the purpose of learning how industrial engineering techniques are used in determining the best layout for a plant and the most efficient kinds and uses of equipment within the facility. The discussion will aid persons concerned with improving the efficiency of handling fruits and vegetables in packing and storage houses, processing plants, and wholesale houses in showing plant operators how to remodel or rebuild their facility and to determine the kinds of equipment best suited to their needs. Members of the group are encouraged to give examples of the results they have obtained through this approach to the problem.

Group D - Livestock

Topic: VERTICAL INTEGRATION AND ITS EFFECT ON MARKETING

Chairman - Hon. Loyd Van Patten, Assistant Secretary, Iowa Department of Agriculture

Secretary - R. P. Callaway, AMS, U. S. Department of Agriculture

Speakers:

The Economic and Technological Forces Back of Vertical Integration - Orlin J. Scoville, ARS, U. S. Department of Agriculture

Vertical Integration of Livestock Production and Marketing Functions - How Far and Who Will Do It? - Dr. Clifton B. Cox, Purdue University, Lafayette, Indiana

This group will concern itself with the potential development of vertical integration in the production and marketing of livestock and the changes that are necessary to meet the needs of the future livestock economy. In its discussions, the group will consider the economic and technological forces back of the recent rapid growth of integration in particular lines of agriculture and the probable effects of this development on the size and organization of producing and marketing units. With this background, the group will analyze what changes should be made in the character and scope of marketing services provided by State departments of agriculture to meet the needs of an integrated livestock economy, should this materialize.

Group E - Poultry and Eggs

Topic: THE CHANGING MARKETING SYSTEM FOR EGGS

Chairman - Winzer J. Petr, Kansas State Board of Agriculture

Secretary - Kenneth H. Brasfield, AMS, U. S. Department of Agriculture

Speakers:

Our Experience in Improving Egg Quality at the Producer Level- Gerald Zich, New Jersey Department of Agriculture

Promoting Production of Quality Eggs in Florida - Earl H. Nelson, Florida Egg Commission, Tampa

Rapid changes are taking place in the marketing channels through which eggs move from the farm to the ultimate consumer and in the methods of caring for, handling, packing, and grading at the farm and local assembly point. Stricter control over egg quality at the producer level--a key feature of contract or integrated egg production and marketing operations which are spreading into the egg business--has opened up possibilities for greater mechanization of egg grading and packaging and the transfer of final grading and cartoning from city markets to country assembly markets. In this session, the significance of these recent trends will be discussed with particular emphasis on the effects which they may have on marketing efficiency, egg consumption and Federal and State regulatory and marketing service programs.

Group F - Dairy Products

Topic: INCREASING OPERATING EFFICIENCY OF MILK AND DAIRY PRODUCTS PROCESSING PLANTS

Chairman - Frank B. Ford, Mississippi Department of Agriculture

Secretary - Dr. Louis F. Herrmann, AMS, U. S. Department of Agriculture

Speakers:

Opportunities for Reducing Milk Handling and Processing Costs - Dr. Charles E. French, Purdue University

Plant Consolidations and Mergers as a Means of Attaining Greater Operating Efficiency - Dr. Truman F. Graf, University of Wisconsin

This group will discuss the impact of technological developments on the optimum size of milk receiving and processing plants and consider the changes in management practices, equipment, and plant handling methods needed for more efficient operations. Attention will be given to the opportunities for reducing unit handling and processing costs through consolidations and mergers and the advantages and economies of multi-purpose plants.

Group G - Grain

Topic: DEVELOPING AND CONDUCTING A PROMOTION PROGRAM FOR WHEAT

Chairman - Charles O. Moser - Colorado Department of Agriculture

Secretary - E. C. Collins, AMS, U. S. Department of Agriculture

Speakers:

Factors to Consider in Developing and Conducting a Promotion Program for Wheat - W. W. Graber, Administrator, Kansas Wheat Commission

Developing Markets Abroad - James O. Howard, FAS, U. S. Department of Agriculture

This group will discuss the important considerations in developing and conducting a promotional program to expand domestic and foreign market outlets for wheat including the decisions concerning selection of markets; types of media to use in promotional activities; information needed to reach such decisions; selecting groups and organizations to carry out such a program; kinds of activities that can be performed by State departments of agriculture in assisting wheat commissions and similar organizations in this type of program; functions that should be performed by a wheat commission and other groups in organizing and enlisting the support of producers, buyers, and the wheat industry; and ways of determining the most effective promotional techniques. The presentation will center on the plans and progress made by the Kansas Wheat Commission in its promotional program, as an example of work in this field. Conclusions will be reached on the best ways to develop an effective promotion program for wheat and wheat products and on what State departments of agriculture can do to assist in this type of program.

12:30 - 1:30 p.m. LUNCH

1:30 - 2:30 p. m. MEETINGS OF THIRD WORK GROUPS

(Continuation of Third Work Groups formed at morning session.)

2:30 - 4:30 p.m. GENERAL SESSION

Chairman - Hon. Byron G. Allen, Commissioner, Minnesota Department of Agriculture

Presentation of Work Group Reports

Developing and Operating a Marketing Program in a State Department of Agriculture

The Use of Publicity in a Marketing Program

Fruits and Vegetables

Livestock

Poultry and Eggs

Dairy

Grain

Concluding Remarks - William C. Crow, Liaison Officer,
Matching Fund Program, State
Departments of Agriculture, AMS,
U. S. Department of Agriculture

4:30 p. m. Adjournment

ADJUSTING MARKETING SERVICE PROGRAMS TO CHANGING CONDITIONS

A report of the National Marketing Service Workshop
at Springfield, Ill., November 18, 19, and 20, 1958

PLANS FOR THE WORKSHOP

William C. Crow, Liaison Officer, Matching Fund
Program, State Departments of Agriculture
United States Department of Agriculture

The Program Committee, the members of which are listed on the first page of the program,have tried very hard to develop a program that will be of real benefit to employees of State Departments of Agriculture who are engaged in marketing work. Our theme, "Adjusting Marketing Service Programs to Changing Conditions," was chosen because so many of the States are in the process of modifying their marketing activities so that they will better meet the needs of their people. No one in attendance here has ever seen a time when so many changes were being made in marketing methods, institutions, facilities, and practices. Production areas are changing. The composition of diets is shifting with more emphasis on certain types of foods. Consumer expenditures for food are rising. More services are being demanded of the marketing system. A retail food store stocks many items that did not exist 10 years ago, and many others in new forms. The average operator's volume is increasing. Labor saving devices are being sought and adopted. Closer coordination between successive steps in the marketing channel is being achieved, and numerous other changes are underway. In the face of such changes, a State Department of Agriculture cannot stand still in its marketing work.

This program is aimed at helping us all understand the changes that are taking place, see the problems that are in need of solution,and learn how to deal more effectively with them. A major place in the program has been given to a consideration of the marketing activities that should be carried on in a State, and how they should be organized. Another group will devote its time to a study of how the proper kinds of publicity can improve marketing. Those interested primarily in certain commodities will find groups studying commodity marketing problems. I have seen no conference where so much could be learned about so many aspects of marketing in such a short time.

The program for each half day will begin with a general session in this room. At these sessions outstanding speakers will talk on subjects of general interest. Following the general session all persons in attendance will divide to form seven work groups which will meet simultaneously in the rooms assigned. As noted in the program there are groups on "Developing and Operating a Marketing Program in a State Department of Agriculture" (for Commissioners of Agriculture, heads of Divisions of Markets, and other persons in administrative positions), "The Use of Publicity in a Marketing Program" (primarily for information people), and commodity groups (Fruits and Vegetables, Livestock, Poultry and Eggs, Dairy Products, and Grain). Each group has a leader who is primarily responsible for its operation, a chairman for the day, and a secretary. Each work group meeting will open with talks on the subject outlined in the program. Any person registered may join any work group he desires, but having entered a group he should not move to another one during the day. Persons wandering from one group to another during a day not only get little from the conference but are a hindrance to those people who are concentrating on a problem. Each work group will finish its first topic by 5 o'clock this afternoon. Tomorrow morning all persons are again free to choose any work group they prefer. In this manner all persons will have the opportunity of attending all general sessions and participating in work groups on three subjects (one each day).

Each work group will strive to reach conclusions on the assigned subject, and on Thursday afternoon at a general session the group leader will give a report on the highlights of his group discussion. In this manner we may all get an idea of the conclusions reached by all work groups.

If anyone has not registered he should do so as soon as possible. Proceedings of the workshop containing all speeches and work group reports will be mailed to all persons registered. All persons expecting to attend the banquet tomorrow night should procure a ticket at the Registration Desk today, because we must notify the hotel of the number of persons to be served. A good meal will be served, relaxing entertainment provided, and an entertaining and stimulating speaker will be with us.

Your attention is called to the fact that because of numerous requests no formal program has been arranged for this evening. The evening is left open for special meetings on any subject which a group may desire to discuss. If any of you plan such a meeting, please hand your announcement to me for reading at the general session just after lunch today. Speakers desiring projectors, blackboards, or other special equipment should make their needs known at the Registration Desk. Persons needing typing assistance should also request it at that desk. Please wear your name tags throughout the meeting in order that we may all become better acquainted. The Advisory Committee on the Matching Fund Marketing Service Program will meet immediately after the close of the workshop. If you have any suggestions or gripes give them to a member of that committee.

Remember that a workshop is a place where everybody works. Each person here is a student at this school, but each is also a teacher. Learn all you can, but don't fail to contribute your ideas so the other fellow can learn. The stage for this meeting has been well set. What you get out of it depends on you.

NEW HORIZONS FOR MARKETING SERVICE PROGRAMS

Roy W. Lennartson
Deputy Administrator for Marketing Services, AMS,
U. S. Department of Agriculture

During the early years of the matching fund program, the workshops were limited in scope and dealt primarily with the restricted programs then underway in the States. They have now evolved into a forum for discussion and evaluation of the full range of marketing problems in agriculture. This treatment of the basic and broad problems in marketing is considered to be a highly desirable aspect of the workshop.

The rising curve of requests and needs for marketing services in recent years has resulted in considerable expansion of the work in both the States and in USDA. A working force of about 20,000 persons and a budget of $75 to $100 million is now required to conduct the combined programs.

Our marketing service programs are being subjected to severe pressures arising from the technological revolution in agriculture and drastic changes in the marketing structure. The integration of production and marketing functions in the broiler industry and in turkeys and eggs illustrates the revolution taking place at the farm level. The claim that some 12 buyers purchase about 70 percent of the broiler output points up how drastic have been the changes in distribution methods and retailing. The tempo of change in these areas makes it difficult to keep current but the main directions are generally understood. This is not the case regarding the effects on marketing services. Here there is a lag in revamping programs to meet the realities. To illustrate: purchasing of livestock is shifting more and more from the terminals to country buying stations, auctions, feed lots, and ranches, yet we have only a fragmentary system of reporting transactions at those country points. Modernization of market news services to meet these changing conditions will be expensive. This calls for a hard look at methods of communication and for greater coordination of effort at the Federal and State levels to hold down costs.

In addition to market news there are other areas where the forces of change are creating problems in providing needed services. Specification buying, for example, is requiring a reexamination of official grades and standards. The development of convenience foods and other new food products presses for an expanded program in the grading field. Other potential or existing developments which may require expanded grading services are: (1) Live beef grading; (2) live or carcass grading of meat-type hogs; (3) certification of protein content in grains; (4) certification of product quality in accordance with buyer specifications; (5) raw product certification to include sanitation as well as product quality; (6) objective laboratory analyses of certain product qualities - e.g. fibrograph, micronaire, maturity and Pressley tests in cotton.

In the regulatory field, there is a need for greater emphasis on the service aspects. The matching fund program has done much to encourage this approach by the States in administering quality control laws and regulations, with good results. Likely areas of greater regulatory activity include marketing orders and the amended Packers and Stockyards Act. Wider use is being made of marketing orders to help establish orderly marketing conditions. Some 80 milk markets and six potato marketing areas are being regulated under Federal orders. Several States are showing an interest in this type of marketing regulation and a few have enacted enabling legislation. Recent amendments to the Packers and Stockyards Act will more than double the number of markets to be posted and greatly increase other administrative responsibilities.

All this adds up to a greater demand for marketing services in the future. In preparing for it there will need to be more long-range planning, further exploration of areas of Federal-State cooperation and of cooperation between States on a regional basis, and greater attention given to employee qualifications and tenure systems. Prospects are for a period of strict austerity, which means that requests for new services must be carefully screened to be sure a real need exists. Likewise, the contribution of existing services to the improvement of marketing should be thoroughly reexamined.

A RETAILER VIEWS THE MARKETING OF FARM PRODUCTS

W. C. Ferguson, Vice President
American Stores Company

Good afternoon Mr. Crow, Mr. Alampi, friends and delegates to the National Marketing Service Workshop. I am delighted to be here, but must tell you that I am neither an expert nor a specialist in farm problems, and yet I am keenly interested in everything you will be discussing here during the next few days. This is because all food retailers realize that only through cooperation between producer and distributor can our economy be stabilized and our future remain secure.

Cooperation between the producer and the distributor is not a marriage of convenience, it is a matter of necessity. It is not a case of being "fair weather friends," but a continuing unity in good times as well as bad. That's why these workshops contribute so much, for they remind us of the continuing need to help one another.

Yesterday, the following prediction caught my attention. Nathan Koffsky, the U. S. Department of Agriculture's farm income specialist, speaking in Washington before the 36th National Agricultural Outlook Conference said, "This year, in sharp contrast to the outlook of a year ago, we can look forward with considerable assurance to a growing economy in the year ahead." The average consumer is expected to enjoy significant gains in income, some price stability, increased employment, industrial output, and enhanced purchasing power. But he added, "Some of the increase in consumer income may be partially offset by a drop in income from farming." Department economists have forecast a downturn next year of from 5 to 10 percent in farm income because of lower farm prices.

Today, the hog market is high -- 18 to 20 cents, yesterday it was 18½ cents in Chicago, almost double what it was several years ago. What happened to the "Lean Pork Program" that was started when prices were low to give the housewife better value for her dollar? When the supply is plentiful again next year, will she still be buying as much pork? Or, will she have developed preferences for other kinds of meat that show less waste and today are giving her better value for her money?

This subject was discussed this morning in the "Group D" Livestock meeting. Mr.Maybee had a real story to tell about the Canadian Hog Program, for they have been doing an outstanding job in producing lean pork. Let's look into some other areas where successful efforts are in evidence.

The American Stores Company, like many other food chains, are continually trying to improve the quality of fruits and vegetables and help the farmer raise profit margins through more uniform grading and packaging. We have been emphasizing the importance of having products washed, waxed, and polished in order to display them in a more appetizing and appealing manner.

Years ago, the farmer shipped his potatoes to retail stores just as they were dug. Many of us who worked in grocery stores 20 years ago remember, and not too fondly, the chore of carrying potatoes in 100-pound burlap sacks from the delivery truck to back room, often on our backs. In those days, most doorways and aisles were too narrow to accommodate platform trucks. Growers firmly believed that it was up to the retailer to sell potatoes from bags, pecks, counters, bins, or however they wished. The retailer simply "piled it high and priced it low."

Later cooperative groups began to experiment by shipping potatoes in 10-pound and 15-pound kraft bags. Encouraged by the popularity of this move, Maine growers decided to pack their potatoes in white bags, and these packages began to outsell the products of other States packed in brown bags. Next, certain producers began to pack their potatoes in window bags, and almost overnight these selling units captured the public's fancy. Later, 5-pound window bags appeared and became a hot selling unit, appealing to small families and apartment dwellers.

Then, someone got a bright idea. Why not display potatoes in transparent bags? This started a real revolution because suddenly customers discovered that newly dug potatoes weren't very pretty! So a few smart growers decided to wash their potatoes before sending them to market. The success of this idea quickly became apparent and soon all potatoes were being washed and fully displayed in transparent polyethelene bags. Now selling units are again growing larger. In many areas 50-pound units are outselling smaller packs and prices reflect the saving.

This trend is interesting for another reason. Instead of being content to let the retailers "merchandise" their potatoes, the growers, through their cooperatives, have taken over the job and are competing with other State associations for the consumer's dollar.

Equipment manufacturers have aided materially in this development by building small washing and waxing machines that are priced within the reach of small farmers. Hydrocooling, or cold water baths are also valuable in improving the appearance and keeping properties of corn, string beans, and tomatoes. Similarly, vacuum cooling has been an important aid in the preservation of spinach, lettuce, cabbages, and other leaf vegetables such as endive and escarole. While many farmers are able to take their products to local cooling plants, smaller vacuum-cooling equipment has been developed into mobile units which can travel out to the farm areas to save the farmer transportation.

In our conversations with the local farmers we suggest they ship their products in cell-pack or tray-pack cartons so that certain fruits and vegetables may be packaged to avoid spoilage or damage while in transportation. The marketing of peaches provides a good example. Original containers have changed from baskets to tills to boxes. Then precooled peaches made their appearance. Growers learned that by dipping peaches in cold water and transporting them in refrigerated trucks, quality was preserved and less spoilage resulted. Today peaches are packed in special boxes, similar to pressed egg cartons with spaces for each individual peach. Again, the grower has found a way to raise profits by reducing spoilage.

Frequently, we invite local farmers to meet with members of our Produce Buying Department and discuss ways and means to help one another. For example, on April 16 our Syracuse, New York branch invited 27 local farmers to dinner. After a hearty meal of boiled ham, potatoes, cabbage, and apple pie, served country style, our produce buyer took these men on a personally conducted tour of our warehouse storage and shipping facilities. Afterward, they were greeted by our zone manager, who led a discussion on various ways and means of improving their products.

We talked about developing better shipping cartons that could make at least one round trip from the grower to warehouse to stores without damage to their contents. Uniformity was also discussed and the advantage of selling tomatoes, corn, and peppers of uniform size and weight. Various approved methods of cleaning products were also discussed and sample packages were distributed to demonstrate how other farmers were packaging and displaying their wares.

During this and similar meetings, the most modern methods of quality control were discussed starting with the grading of the product according to size or weight, the washing process, then the waxing and wrapping and the use of approved cardboard trays and containers.

A few days ago, I had an opportunity to visit one of these farmers. His name is George Hafner and he lives just outside of the city limits of Syracuse. George Hafner cultivates approximately 150 acres which is considered in that area to be a "medium-size farm." After inspecting several fields, I was shown various pieces of equipment he had constructed and assembled with the advice and counsel of Joe Shimborsky, our zone produce buyer.

When George Hafner first started selling his tomatoes to the American Stores, he was receiving the established market price of 75 cents for a 30-pound half-bushel basket. This was then the current market price for "field run" tomatoes in the Syracuse area. After our encouragement, George Hafner started to grade his tomatoes, washing and waxing them with the help of a homemade and somewhat crude apparatus. We then paid him $3 for a half bushel which was at the rate of $1 for 3- to 10-pound baskets. This was four times the price farmer Hafner had been receiving for his "field run" tomatoes. However, he still had the problem of selling his culls. Our buyer pointed out that these could be marketed in bulk at the local auction and, sure enough, the next day George Hafner sold his remaining tomatoes for 75 cents a half bushel, the total price he had received for all his tomatoes prior to our merchandising program.

Today, George Hafner sells not only premium packages of tomatoes but he has many more acres under cultivation. Buyers come 70 to 80 miles in order to purchase his products and the improved packaging and keeping quality of his 10-pound units allow these buyers to transport their products greater distances than would have been possible in the past without damage or deterioration.

Significantly enough, George Hafner has hired no more help with his increased acreage. He has also recently raised 500 bushels of cucumbers which he washed, waxed, and sold in competition with Southern farmers, and these cucumbers have paid for the purchase of new equipment!

Frank Magary, another local Syracuse farmer, using similar equipment, has increased his production and profit on radishes, green onions, bunch beets, and leaf lettuce. Before he had a hard time delivering his products to our warehouse by 6 p.m., now he unloads his merchandise at 3 p.m. Even more important, his sales are up 15 percent with three less help!

While George Hafner and Frank Magary are only two farmers out of hundreds--perhaps thousands--we are dealing with throughout the seven States in which we operate retail stores, it helps to illustrate the type of service being rendered by the food chains to the small, independent farmer and how we have helped him reduce cost and increase profit margins.

Currently, four of our retail store employees are attending Michigan State and Cornell Universities doing graduate work in Food Distribution. They bring the number up to 20 of our operating personnel who have taken this full-year course entirely at company expense. We also have 12 "off the job" in our Company Training Program and a staff of 22 full-time trainers recruited from our best operating personnel. Such courses include managerial and supervisory programs as well as "skill training" in the proper handling of meat, fruits, vegetables, and dairy products.

Recently, the American Stores Company completed a 10-year survey of the results of purchasing fruits and vegetables for direct delivery to retail stores located in Atlantic County, New Jersey, and also in the Philadelphia area. This has proved to be a very successful operation for both the growers and our company. The resulting "good will" has also added tremendously to the success of the undertaking.

Starting with 21 growers whose total direct store deliveries amounted to less than $30,000 a year, today we have 80 growers participating within the same territory, and their sales this year will exceed $400,000 and these farmers represent only a relatively small proportion of our total suppliers.

These results were achieved by having special representatives of the American Stores Company stationed in the producing areas each season and keeping in close touch with both the farmers and our store managers. Orders are placed with the farmers daily. Most produce deliveries are made before the stores open each morning and the most perishable commodities are usually picked the same morning that they are delivered. Through this program it has been possible to sell "tree-ripened peaches" and "sweet corn only a few hours old," and other fruits and vegetables at their very peak of perfection.

Growers like the program because it gives them a high proportion of the consumer's dollar. They gain steady and regular outlets and are paid for both the higher quality as well as for packaging and delivery. Our customers are also pleased with this program for they are able to buy fresh, top quality produce at no greater cost than produce they purchase elsewhere. Proof of their satisfaction is the increase in sales in the Produce Departments served by this program. It is also worth noting that our spoil rate and losses are much less due to the improved packaging and keeping quality of this merchandise. The success of this program has enabled us to reduce produce prices, thereby passing a proportion of this gain back to the consumer.

In 1945, we encouraged Florida growers to start spraying corn to help eliminate worms. Soon local Pennsylvania and New Jersey farmers followed suit. Today with the added advantage of hydrocooling, which helps preserve the sugar content, we are selling corn in our stores 12 months a year.

Regular meetings are scheduled with county agents and growers two or three times a year followed by personal visits to the farms to discuss local problems.

Many accept our standing invitation to visit warehouses and coolers and I have had the personal pleasure of addressing many such groups in Philadelphia and elsewhere.

As everyone knows, no retail organization can dictate to independent egg producers. However, corporate chain experience can often help the producer to reduce expenses and increase his net profit. To better understand the problems of local egg producers, our Company maintains a force of trained field supervisors who regularly visit farmers and dealers to inspect quality and offer constructive suggestions for improving their operations.

Experience tells us that five or six strains of hens produce a more desirable product than the average layers. Through such selection we can reduce blood spots to a minimum, increase viscosity and strengthen the albumen, thereby achieving a more desirable shell thickness. These eggs will be 90 percent perfect before candling, saving both time and money for the producer. We recommend Hy-Brid birds to assure thick, chalk-white shells and heavy albumens.

To further help egg producers and dealers to maintain high quality and realize maximum profits, we have drawn up the following recommendations. For example, we recommend that eggs should be laid by confined birds of 18 months or less. We recommend collecting the eggs from the nest at least three times daily, more often in the summer. We suggest producers install mechanical coolers and humidity controlled refrigeration both in summer and winter for, as you know, it is desirable to avoid low humidity in the winter time.

We also recommend uniform feeding the year round to insure light yolks. Feeds containing a high oat content are found to be generally more desirable. Eggs should be marketed at least twice a week and should be nest-clean or dry-cleaned. Of course, they should be infertile, for no rooster should be mixed in with the hens.

Weights are usually specified to help insure quality. For example, large eggs should weigh no less than 25 oz. or more than 27 oz. per dozen. Also, the quality of eggs has to be watched more carefully during May and September due to climatic changes.

Often an inspection of facilities will help our representative recommend to the producer ways to prevent breakage and improve the cleaning process. We will accept washed eggs when certain processes are used. Unfortunately, some producers disregard the instructions printed on the sanitizing solutions. Instead of running only 50 eggs through the solution, they will sometimes run 200 eggs through the same solution before changing it. When this is done, the solution may have become too weak to properly clean the eggs. Sometimes the water is not kept at the proper temperature (110° F.). If the cleansing solution becomes too warm it may coagulate the albumen. If the water gets too cold, bacteria will move from the water to the eggs.

Our Company also specifies the most desirable packaging material. For example, we recommend packing 15 or 24 dozen eggs to a case. The bursting test of a case should be 275 pounds to the square inch. Internal dimensions should be sufficient to accommodate "Case Ace" cartons with no buckling. We also suggest that the case be collapsible and water repellent. Such cases can be reused and cost much less per trip than other crates.

During the past few years, many labor saving devices have been introduced, although most of them are possible only in large operations. Conveyor belts for collecting eggs and feeding are still controversial and have not won too wide an acceptance. New blood detection devices are available, although they are proving most effective on white eggs. Black light is being used to floress eggs to help detect psuedo-monous bacteria. However, the most advantages seem to be in controlling the strains of laying hens, using a regular, uniform feed containing a high oat content, maintaining proper cleansing facilities, controlling temperature and humidity, and proper packaging.

Currently, we have abandoned our egg candling rooms and producers in many areas are making deliveries directly to our stores on a scheduled basis, at an agreed upon price. As a result, everyone is better off. The producer has an assured market, at a fair price, handling costs have been reduced - breakage and losses virtually non-existant.

Looking into the future there will be new developments in preservation, such as atomic radiation. We understand progress has been made in the sterilizing of fresh milk, without much change or loss of flavor. When this becomes perfected, it could result in a genuine revolution in the cost of distribution.

There will be a continuing development of prepared heat-and-serve foods, at prices that will shrink the premium over the cost of home-kitchen preparation.

As far as possible, the work of processing and preparation will be removed from the retail store, because there is greater efficiency in having this work done at the point of production or in a centrally located distribution plant.

In planning ahead, it is becoming increasingly difficult to forecast, with any degree of accuracy, our future economy. We are aware of the dangers of inflation as stocks, commodities, and wages slowly spiral upwards. On the other hand, the tremendous growth in population is continually creating new markets and requires an increasing supply of food, shelter, and clothing.

Unfortunately, man-hour production has not increased correspondingly to the degree that wages have risen. This is a problem in all industries. However, many technological improvements in manufacturing have helped reduce cost and various forms of automation have appeared to help hold the line. Great advances in material handling methods and electronic data processing equipment have helped answer the challenge of improved productivity. Nor do we fear the loss of jobs through these developments for actually nearly half the jobs today didn't exist in their present form 25 years ago.

We can look for and expect greater productivity in the years ahead aided by research and innovation. There will be higher income and more savings, larger high schools and greater universities. All will contribute their share toward achieving the better things in life. However, as Mr. Lennartson pointed out this morning, "We must spend our future dollars more wisely." And as he added, "We need better planning and better personnel."

This is the age of distribution and the farmer today is meeting this challenge. America is a relatively young country with vast land areas and as we develop better methods of harvesting, preserving, packing, and shipping our agricultural products, greater markets will appear on the horizon.

Above all, we believe that the principle of Democracy with God's help will survive and our way of life will eventually become the accepted pattern throughout the world. This I say and believe with all sincerity, for as we continue to help one another achieve success in these joint undertakings, we are practicing the Golden Rule. Such efforts cannot help but result in building a secure and vibrant economy that will surpass today's most optimistic predictions.

MARKETING SERVICE PROGRAMS IN CANADA

W. C. Cameron, Assistant Director, Marketing Service
Canada Department of Agriculture

Through the kind invitation of William C. Crow it is my good fortune to have this opportunity of participating in the National Marketing Service Workshop. My assignment is, as I understand it, to tell you something of "Marketing Service Programs in Canada ."

That actually would be something of a misnomer so far as our domestic circumstances in Canada are concerned since the Marketing Service is one of the four main Services in the organization of the Federal Department of Agriculture, and the ground which I propose to cover extends rather beyond the functions performed in the Marketing Service of the Department.

It is assumed that the general field in which you would be interested would be in marketing programs in our country which are associated with government activity. These would fall under four main headings: grading, markets information, markets promotion, and marketing boards, including a brief reference to price stabilization activities, although I understand price supports are outside the purview of your immediate interest.

At the outset a brief reference should be made to the division of authority in Canada between the Federal government and the provincial governments, because we do have that division of authority in Canada just as you have it in the United States between the Federal and State governments.

This has been an important issue in the development of marketing legislation in Canada over a great many years and a rather long series of high court decisions have gradually clarified the respective jurisdictions of the Federal and provincial governments.

Our basic constitution is the British North America Act, which was an Act of the British Parliament at the time of the confederation of the provinces into the Dominion of Canada in 1867. Those who drafted the Act could not foresee all the items which might require legislative action, so its authority is couched in broad terms and it has become necessary over the years to determine into which of those broad fields individual items of legislation fall.

So far as concerns the matter of immediate interest to us in the field of agricultural marketing, it has been determined that legislation concerning the marketing of a product purely within a province is one of provincial jurisdiction. This is under the authority of the provinces for what the British North America Act calls Property and Civil Rights. Once a product crosses a provincial boundary it comes under Federal jurisdiction as the Federal government has authority over interprovincial and international trade. This division of authority has, of course, presented some knotty problems and some rather ingenious arrangements have been developed to harmonize them, which will be explained as the discussion develops.

Dealing now with the matter of grading farm products, there is no need, with an audience such as this, to talk about the underlying principles and philosophies of grading because I take it that they are common both to your own country and to ours.

In its early history Canadian agriculture was predominantly dependent on export markets. That relative dependence on export, in fact, lessened only gradually until the last two decades when, with our increasing industrialization and growth in population the domestic market began to assume increasing importance. It was natural therefore that our first entry into the field of grading was tied almost exclusively to export products. Our interest was in establishing grades and standards of quality which would strengthen the position of our products on foreign markets.

It was along about the 1920's that we started to think in terms of grading farm products for domestic sale. At first this took the form of establishing grades for wholesale interprovincial trading, which was really an extension of the export grading operation. Gradually it extended into the grading of products for retail sale and the payment to producers on a graded basis. That newer philosophy is now pretty well anchored in our grading system and extends over a rather wide range of products.

At this point, to explain how we operate, I should return again to the matter of federal and provincial jurisdiction. There is no issue so far as interprovincial and export trade is concerned. That is a matter of federal jurisdiction and the federal government can and does enact legislation requiring the grading of a very large number of farm products entering into interprovincial and export trade. But the federal government cannot, for example, require that eggs be sold by grade within the province of Ontario or that producers in the province of Saskatchewan should be paid for their hogs on a graded basis.

There is, however, general agreement between federal and provincial Departments of Agriculture that it is in the interests of agriculture to have products bought and sold by grade, so far as is feasible. There is also complete agreement on the desirability of avoiding differences in grade standards between provinces or in duplicating government grading or inspection staffs. Therefore, except for products which are purely a matter of provincial concern, such as fluid milk or cream, grade standards are established under federal statute. The federal legislation then requires, as considered desirable, that those grades be used in interprovincial or export trade. It makes one other significant provision. It provides that where anyone applies those federal standards to a product, it shall be an offense if the product is not properly graded. The federal law cannot require that if a product is sold within a province it be marked with a federal grade name, but it can and does say that if those grade names are used they must be applied correctly.

As the next step the provinces pass legislation which says in effect that to be sold within the province the product must be graded according to the federal standards or that the purchaser of the product from producers must grade it according to federal standards and pay the producer on a basis of grade. Thus grading in all channels of trade is accomplished.

For example, the province of Manitoba says that all butter sold in Manitoba must be graded and marked with a federal grade. If it is not, the provincial law has been broken. If it is marked as Canada First Grade and it is not, then a federal law has been broken. This has worked quite well. One grade standard applies across the country and the limitations imposed by the British North America Act have been welded into a working arrangement to take care of a circumstance which the drafters of that Act could not have foreseen.

There is one other item of federal-provincial cooperation in this field which should be mentioned. To overcome having both federal and provincial staffs acting as graders or inspectors for the same product under their respective legislations, the provincial governments designate the federal staffs as inspectors under their legislation and,for the most part, both the federal and provincial laws are enforced by the one federal staff. Where the provinces have inspectors in a given field, they are designated as officers under the federal law.

I might touch briefly on some other aspects of our grading operations which may be of interest to you.

By a combination of provincial and federal laws, a wide variety of products are required to be sold by grade at retail. This includes most fruits and vegetables, whether in fresh, canned or frozen form, butter, eggs, etc. There is another large group on which grading for retail sale is not mandatory or universally so, but is followed widely on a voluntary basis. This group includes several meats, poultry, and cheese.

Several commodities, such as eggs, cream, and western cereal grains are required to be bought from producers on a graded basis and there are several others where graded purchase from producers is widely followed on a voluntary basis.

In some instances our staffs actually grade the products. In other cases the grading is done by commercial interests and our staffs act as inspectors. The decision is based largely on feasibility. It is possible for the government to provide staffs to do the actual grading of such products as hog, beef, or lamb carcasses or bulk butter and cheese. We do not consider it feasible to provide staffs to grade all the eggs or poultry, or apples or potatoes in the country and, with such products, the grading is done by the industry with the government staffs acting as inspectors to see that grade standards are applied properly.

Two techniques are employed with respect to enforcement of industry grading.

One is to require that industry grade products only in premises which we authorize and which we call registered grading stations. This gives us some control over facilities and grading staffs to the end of ensuring that grading will be properly done.

The other is the use of detention as an enforcement measure. We rarely now have to resort to legal action in the enforcement of grading regulations. We have authority to place under detention a product which is not properly graded and marked and to hold it under detention until the seller has corrected it. This has been a most valuable enforcement tool.

Our grading and inspection services are for the most part free, although in some instances we do charge for making inspections and issuing commercial grade or inspection certificates. This, however, is a field in which we have not yet achieved complete uniformity of administration.

Market Information

The grading and inspection programs that have been discussed not only contribute directly to the efficiency of marketing but, in addition, provide a useful byproduct in the market information which they make available. Various documents that must be produced in grading and inspection are processed and provide basic marketing data, such as volume of receipts at markets; volume of movements between markets; prices; origin and destination of receipts; distribution by grade; imports, exports, and other related data. These statistics are published daily, weekly, monthly, and annually, as the case may be, and are distributed as quickly as possible as market reports and as basic information for the use of newspapers and radio. In this way, a great deal of useful information is provided and contributes to the more intelligent and orderly marketing of agricultural products.

Auxiliary Activities to Grading and Inspection Programs

Before leaving the discussion of grading and inspection of agricultural products, mention should be made of some of the auxiliary activities. In the case of butter and cheese, provincial instructors, federal graders and the makers of these products meet in small local gatherings throughout the country usually in the evening. At these meetings dairymen grade and discuss samples of milk, cream, butter, or cheese with particular emphasis on causes and remedies of defects found, and other current problems of manufacture and sale.

Livestock carcass grading demonstrations are held at many gatherings of farm folk or farm youth clubs. Producers are encouraged by packinghouse and government officials to come with shipments of livestock and remain to see the carcasses graded.

Egg and poultry grading schools are conducted by federal officers often in cooperation with provincial governments and universities and sometimes with the Department of Labor's Youth Training Program. These schools vary in duration, some are for a few days only and are attended mainly by experienced graders who feel they need refresher training. The longer periods of two weeks attract less experienced men who wish to become proficient in the work.

Merchandising schools for retailers of poultry products are held in cooperation with provincial officials and retail organizations. They are of one-day duration and feature such things as demonstrations of how to "cut up" poultry, packaging and display of poultry meats to enable them to be shown to best advantage, and a discussion of basic principles involved in the proper handling of these commodities -- importance of refrigeration, for example. On much the same basis but of wider industry interest are poultry processing conferences of only one-day duration where specialists in sanitation, refrigeration, retailing, packaging, advertising, etc., tell the gathering what they are doing and why, and are prepared to answer questions and suggest where improvements could be made.

Considerable importance is attached to these public relations services because if those engaged in an industry appreciate the place of grading in producing consistently high quality products the enforcement aspects of the legislation become more a matter of advisement rather than policing. Such an attitude is most conducive to permanent improvement in quality.

Quality Premiums

It is generally accepted, I think, that in order for producers or manufacturers to put forth the necessary effort to market a product of high quality there must be definite economic incentives. In the case of pork and cheddar cheese the Government has undertaken to provide a portion of that incentive. The case of pork has been presented at a previous meeting which described the basis of paying direct to farmers a premium of $2 per hog of Grade A quality and $1 for Grade B.

Twenty years ago, cheddar cheese was the main product by which milk, surplus to the domestic market, was exported, mainly to the United Kingdom. The general economic health of the dairy industry depended largely upon the welfare of the cheese branch. In order to foster the production of high quality cheddar cheese in economically operated plants, the Government passed The Cheese and Cheese Factory Improvement Act. This statute provides for the payment to producers of 1 cent a pound on all cheddar cheese graded by official graders that scored 93 points and 2 cents per pound on cheese scoring 94 points or higher. Factory owners receive a subsidy of 50 percent of the approved cost of refrigerating and insulating a curing or ripening room. Cheese to be eligible for premium are to be held on the ripening room shelves for at least 8 full days at a temperature of from 58° to 60° F. and a relative humidity of 78 to 80 percent. It has been demonstrated that cheddar cheese made from raw milk will ripen more nearly as desired if held at this temperature and humidity at the beginning of the ripening process. A subsidy may be paid to factory owners amounting to 50 percent of the cost of building and equipping a new factory of approved design when it replaces two or more existing plants.

There was a marked improvement in the quality of cheese production following the passage of this legislation in 1939. In 1938, there was 92 percent of the make graded First Grade, including 35 percent premium quality, whereas in 1941 there was 96 percent First Grade including almost 76 percent premium quality.

Recently there has been little additional advance in quality as judged by previous standards. There was, however, one serious defect the prevalence of which up until 1957, had not been reduced to any appreciable extent, namely, extraneous matter or sediment. Two years ago the legislation was changed and now any cheese to be eligible for First Grade and a premium must be free or practically free of sediment. To enforce this legislation a laboratory was equipped and a technique devised whereby every vat of cheese graded is sampled and tested for extraneous matter.

Refrigerated Warehouse

The importance of refrigeration in the storing and shipping of perishable produce was recognized as early as 1895. Some twelve years later in an effort to extend the marketing period of perishable produce a policy was established whereby the Government paid approximately one-third the cost of building and equipping a public cold storage when it was established that a definite need existed in an area for such facilities. That policy is still in existence except that heretofore no limit was placed on the amount of subsidy payable, whereas now the limit is $50,000. The reason for the change being that the industry now, after 50 years of help, should be able to finance itself except for probably some smaller agricultural or fishermen's cooperatives in outlying areas.

Advertising and Promotion

There are a number of national organizations representing various branches of agriculture such as the Poultry Products Institute, the Dairy Farmers of Canada, The Meat Packers Council, the Horticultural Council, Canadian Federation of Agriculture, to mention a few. Prominently among the interests of these organizations is the marketing of the products they represent. Some have provision for collecting a fee from their members for the express purpose of promoting the consumption of their respective products. The Department of Agriculture may assist industry in its efforts to increase consumption of certain products particularly if the program appears sound and effective and the Department believes the request for help is warranted. The Government usually contributes funds on a basis of matching dollar for dollar the amount spent by industry up to a specified amount.

The use of Government funds for marketing agricultural products is not limited to assisting organizations such as those mentioned but may be used for any purpose that can rightfully be considered as being a marketing problem. Recently a cooperative effort between The Meat Packers Council, a provincial government and a transportation organization undertook an educational program to reduce the hazards of bruising livestock in shipping. The Federal Department of Agriculture contributed by printing posters depicting the common causes of bruising livestock during shipment and suggested preventative measures.

The Department, alone, is promoting the use of small and medium sized eggs. It is believed that many housewives do not know the value of small and medium eggs in relation to large ones. A "ready reckoner" has been devised that shows at a glance the equivalent value of small or medium eggs when large eggs are selling at a certain price. It is small, simple, and can be carried in a handbag with the myriad of other things carried in women's handbags. These "ready reckoners" are being introduced to the public at exhibits designed to focus attention on the value of eggs and especially the small and medium sizes at certain seasons.

Consumer Section

In the Marketing Service of the Federal Department of Agriculture there is what is known as the Consumer Section. The chief function of this Section is to assist in developing the consumer market for Canada's agricultural food products. Information on buying and using foods from Canadian farms is widely disseminated among consumers through such media as the press, radio, television and women's organizations. Under the direction of trained home economists extensive experimental work is carried on in the Section's test kitchens. Here preferred methods of cooking foods and of preserving perishables are determined and new ways of serving available food products in the home are developed. Grading and other regulations governing the manufacture and sale of foods, which are under the Department's jurisdiction, are continually brought to the attention of the public and from time to time consumer preferences and opinions are referred to the branch of agriculture concerned.

Policies with an Indirect but Important Bearing on Marketing

Among the wide variety of government policies designed to promote the production of better quality plant and animal products, there are three which have such an important bearing on marketing it is felt they should be mentioned in a discussion of this nature. The Animal Contagious Diseases Act is designed to prevent the entry of animals or material which may introduce animal diseases into Canada. Provision is also made for measures to eradicate or prevent spread of animal diseases within the country. In the Horticultural Branch of Agriculture, The Destructive Insect and Pest Act provides the same measure of protection for plants as the Animal Contagious Diseases Act does for livestock.

There is another policy the benefits of which are about equally divided between production and marketing programs, namely, Freight Assistance on Western Feed Grains. It is a continuation of a wartime policy of assuring eastern livestock and poultry producers ample supplies of feed. It has been continued largely because it affords producers of feed grains in western Canada and livestock and poultry producers in eastern Canada a measure of security in continuing those established farm practices best suited to their respective locations. The Government undertakes to pay a substantial part of the freight charges on feed grains produced in the grain growing areas of western Canada to points in other provinces when such grains are used exclusively for the feeding of livestock and poultry. Under the program wholesalers and retailers of feed grains deduct the authorized rate of assistance from the sale price of these feeds. When they claim a refund of this amount from the Federal Department of Agriculture they must prove that they have reduced the sale price to the consumer by the full amount of freight assistance.

Marketing Boards

The next item which I thought would be of interest to you has to do with the subject of marketing boards. I am not sure to what extent the marketing board principle has developed in the United States, but it is used rather widely in Canada, in Britain, in Australia, and in New Zealand as well as in some other countries,and I perhaps should give you a bit of background with respect to it.

Since the latter part of the 19th century, Canadian farmers have sought increased selling prices through joint action of various kinds. At first this cooperative action was purely voluntary in character, then, following the fall in farm prices during the 1920's pooling type cooperatives with their ironclad membership contract developed in several parts of Canada in an effort to increase farm incomes. These cooperatives did not prove fully successful. Complete control of the product was not achieved. Nonmembers were in a position to take advantage of any benefits in price resulting from the actions of the cooperatives without shouldering any of the burdens or responsibilites.

During the depression farmers pressed for legislation that would bring about more orderly marketing of agricultural products. In 1934,The Natural Products Marketing Act was passed. This Act was patterned on a form of organization originally developed in Queensland, Australia. The essential feature of this legislation is that where the majority of the producers of a commodity desire to sell their product collectively the minority may be compelled by law to conform with the majority.

In the brief two and a half year history of The Natural Products Marketing Act, some 22 marketing schemes across the Dominion were approved. But the validity of the Federal Act was questioned in 1935 before the Supreme Court of Canada. In 1936,the Court ruled the Act ultra vires of federal jurisdiction. The Government referred this decision to the Privy Council for confirmation. In 1937,the Privy Council declared the Act unconstitutional on the grounds that it infringed on provincial jurisdiction over matters of property and civil rights.

Some provincial legislatures moved immediately to pass marketing acts to permit marketing schemes then in existence to continue in operation. These acts however have authority in the field of intraprovincial trading only, which is too restrictive in the view of most marketing boards. In 1949,the Federal Government passed the Agricultural Products Marketing Act which permits provincial boards to exercise outside the province the same powers which provincial legislation allows them to exercise within the province for the marketing of an agricultural product produced therein.

In brief the situation with respect to marketing boards is as follows:

The basic purpose of marketing boards is to give to producers of a certain commodity authority over the primary marketing of that commodity.

In Canada, with one important exception, these marketing boards are established in the first instance under provincial authority. The exception is the Canadian Wheat Board, which is established under federal authority and which has jurisdiction over the marketing, in the interprovincial and international trade channels, of cereal grains produced in western Canada.

These marketing boards are established by the provinces following a vote by the producers concerned. The majority of the vote required to implement a scheme (usually two-thirds) varies with individual provinces. An example of how these boards operate may be helpful.

Two years ago the producers of fluecured tobacco in Ontario asked to have a marketing board for their product established. Up to that time tobacco had been bought by tobacco firms directly from each grower.

The province accepted the application and ordered a vote to be held among the growers of fluecured tobacco. The percentage favoring the plan was adequate and the province authorized the plan. Another vote was held among producers to elect members of the local board and a plan of operation was submitted to and approved by the provincial board.

This plan is now in its second year of operation. All fluecured tobacco grown in Ontario must now be marketed through the board. To handle the operation the board built three auction warehouses in the fluecured tobacco area. Every grower must bring his tobacco to those warehouses where it is auctioned by the board and the producer given what his tobacco sold for, less deductions to cover administrative expenses.

Boards of this nature, operating with variable degrees of control over the product, have been established for quite a range of products, with some provinces being more active than others. Some boards simply negotiate prices with buyers and do not enter into physical handling of the product. Others take control through a considerable part of the marketing channel. Each individual plan has to be approved by the provincial board.

Generally speaking marketing boards have been formed mainly to deal with fairly specialized local crops, rather than with commodities which are widely produced across the whole country.

Price Stabilization

I said at the outset that I would make a very brief reference to our price stabilization activities, just to acquaint you with what we are doing in that field.

We have had price support legislation since the end of the last war. Last year a new Act, known as the Agricultural Stabilization Act, was passed by Parliament. Under this Act support is mandatory for nine basic commodities which constitute about 65 percent of the value of our agricultural production apart from western cereals. The mandatory support level is not less than 80 percent of the average price for the preceding ten years. Other commodities can be brought under the Act at the discretion of the government and at levels which the government sees fit to establish.

It will have been noted that a major part of the marketing programs in Canada have as an objective the development of markets by offering consistently high quality products and that grading and inspection plays a prominent role. Even in price support activities the general policy is to support the price of top grades only. It has been said, with some justification, I think, that in Canada the grading of agricultural products has contributed more to quality improvement and marketing in general of the commodities than any other single program.

WHAT THE CONSUMER WANTS

J. Stevens Stock
J. Stevens Stock Market Research Company

I must have been soft in the head when I agreed to the title of this talk. In the first place, the title contains a fallacy in that it talks about the consumer in the singular. Just as there is no such thing as public opinion but only a collection of attributes of private opinions which we can add up, so there is no way to generalize about consumers in any singular sense. In a country as large as ours, there are as many different ones as there are people and all you can say is, that so many people want this and so many people want that and can have only the most frequent attributes of consumer wants. I once lost a bet when I bet with an associate that in a large study of gasoline preferences we would find at least one person who would choose his favorite gasoline because he liked the taste of it. I lost the bet, but there was one person whose favorite gasoline was preferred because he liked the smell. More important, the title of my talk is far too pretentious, but it does suggest an outline of what I would like to say.

These are the three points I want to make: (1) I do not know what the consumer wants; (2) probably the consumer does not know what he wants; and (3) maybe it doesn't matter anyway.

This is like the old French saying, "This situation is impossible but not serious." First, I do not know what the consumer wants. Oh sure, I learned all the vague wants they taught us in school like economic wants, psychological wants, physiological wants, and theological wants, but we are in the marketing business and these generalities won't help to sell our products. After all, marketing research is not a substantive science. It is simply a collection, perhaps, of a system of methods. Too often marketing research is pursued in what has been often called Cafeteria Research -- a little bit of this, a little bit of that, no really balanced diet. Actually, there is a continuum of research methods. At one end there is the non-direction-free association with consumers to see if we can understand what makes them tick. At the other extreme, there is market testing where in a small area we try out the process of selling our product to see how it works. In between is a method of survey research where we ask a lot of fool questions and get a lot of fool answers and, most tragically of all, come to a lot of fool conclusions. None of the methods in this continuum is totally valid, but they are all valuable. The only really valid test of successful marketing is if the product sells. Unfortunately, if we would fail in such a test, it would mean bankruptcy. And so, on purpose, we rely on less valid methods of research, knowing that we can, if we are clever enough, predict market behaviour from vocal behavior.

To some, it seems almost ludicrous that we should talk to people using the same techniques of the psychiatrist's couch and then try to predict how these people will behave in the market. But it is much easier to talk to people than to experiment with people, so we must come back again to accepting the proposition that market behavior is predictable from vocal behavior. Obviously, this can never be literally directed since in the polite jungle in which we live, we must always talk logically though our behavior seldom is logical or needs to be.

Sometimes the reasons which underlie human behavior, particularly in the market place, are so subtle, so buried in the subconscious that years of interviewing would be needed to understand truly the single customer's mind. Part of this we make up in numbers. The piece of paper upon which this is written is considerably less than 1/100th of an inch thick. Suppose we would have to measure its thickness with a foot-rule. The thinness of the paper is like the subtlety of the problems we are trying to measure. The foot-rule represents the crudeness of our techniques. But we could get an answer by simply taking thousands of such papers, pile them up and measure their height with a foot-rule, then simply divide the number of sheets into the number of feet we measured. This would be quite accurate in coming to an average and only in this sense can our marketing research techniques be accurate.

In all our collection of very excellent but very crude tools, we have a powerful method of learning how to market successfully. But research in marketing even as research in physics and chemistry must use all the techniques and use them continuously. All research turns out in the end to be unsatisfying. Sure, we learn more all the time but what we learn that we do not know grows even faster than our store of knowledge. So research must be continued, particularly in the competitive field such as marketing where we must stay ahead and make even more intelligent moves than our competitor who is trying to do the same thing. So, I do not know what the consumer wants, but I recommend for your consideration the many valuable tools we have available.

My second point is that the consumer does not know what he wants. How he expresses himself can be downright misleading. If we were really forced to the law to express his point, his wants would be impossible. What consumer would not like to have his product free? This and many other consumer wants you cannot even satisfy. Essentially our job is to understand the consumer and learn how to sell what we have to sell and to make him want what we want him to want. This is the key to useful marketing research.

It is not always necessary to understand the full psychological theories of human behavior. We are engineers of consent. We need only enough theory to do our engineering, just as the structural engineer does not have to know all there is to know about the molecular structure of pure iron. Shelby Roberts pointed out an excellent example of creative research this morning, and he pointed out that many women do not buy enough milk for the weekend. The result is the family goes without milk or they send to the local "Mama and Papa" store for milk, and while they are there, buy an additional $10 of groceries. On these facts Shelby comes to a very important creative decision. The Dairy Association should advertise milk very heavily on Friday, telling the homemaker to get enough milk for the weekend. Next, Shelby takes this fact to the chain stores who look with covetous eyes on the $10 lost to the individual grocer, to enlist their help in promoting the idea to buy more milk for the weekend.

I have illustrated that perhaps the consumer does not know what he or she wants. And now I want to point out that it doesn't matter. It doesn't matter because it is not our job to give the consumer what she wants, but to give her what we have to sell. Even if we could give the consumer what she wants, it would be unfair and stultifying to our society. We can't ask the consumer to do our thinking for us. We must be creative in developing new products, new things for the consumer's benefit. The research is devoted to finding out how to get the consumer to want what you have invented. Suppose 100 years ago we had started doing some research on what the consumer wanted to light his house with. We would have had a perfect description of oil lamps. If we would have kept this up, we would still have had oil lamps. The movie industry came to the conclusion that if the public likes something, they would give them some more of the same. In doing this, they kept plowing the same row--always the same old stuff. They plowed the row so deep they have almost buried themselves as an industry.

No, research is no substitute for creativity. Our modern society has thrived on the notion, however undemocratic it may seem, that one man and God with a good idea is a majority. Perhaps we have become too statistical-minded in the sense that we are always keeping score, always keeping the amounts and quantities of sales--and that somehow, mystically, by keeping accurate score we will win the game. We must study how to win the game and stop the quarterback from watching the scoreboard.

WORKING WITH PEOPLE

Excerpts from speech given by
Harry "Hap" Bowser
Dairypak Butler, Inc.

Tonight I want to talk to you about people -- people like you and me. There is nothing in the world more interesting than people. People are funny -- people are different. They do funny things, say funny things and act in funny ways from time to time. They have different likes and dislikes, different hopes and ambitions, different ideas and ideals.

Life consists largely of association with other human beings. The more people you meet and the wider their diversity, the better you will understand human nature. A knowledge of people and how to get along with them is essential to success and happiness today. Meet all the people you can in life.

Success in getting along with people is being able to understand the other fellow's point of view. A hen and a pig were taking a walk one day. They came by a restaurant that had a big sign in the window proclaiming a special sale on ham and eggs. The hen turned to her boy friend, the pig, and said, "Now, isn't that nice." Said the pig, "It may seem nice to you because for you it is all in a day's work, but for me it means a real sacrifice." Yes, to work successfully with people you have got to understand the other fellow's point of view.

In working with people to put over a program such as you have, you must be a good salesman. Nothing happens in life until somebody sells something. Whether it be a product, a great cause, an idea or an ideal, it must be sold. This marketing program you people have been working on will get nowhere unless you can sell it to others. In so doing, you got to get excited about it. John Wanamaker once said, "When a salesman gets excited about the thing he represents the customer gets excited, and when the customer gets excited, he buys." Get excited about your program and go out and sell it.

Our country was founded on the inherent rights of the individual. The great men and women of all times have been interested in people and have known how to work with them. Let us go back to King Solomon, the wise old king. He was a wise old king, because he was interested in and understood people. The story is told of the time two women were brought before him each claiming to be the mother of the same baby. King Solomon, in all his wisdom, looked down from his throne and said, "Cut the baby in half and let each woman take a half a baby." Immediately the one woman cried out, "Oh, no, don't harm the baby, let the other woman have the baby." I can see a smile come over the great king's face as he said, "Surely the woman who cried out is the real mother--she shall have the baby." Yes, King Solomon was a wise old king because he knew and understood how to handle people.

Then we come down to a Nazarene Carpenter, one called Christ, no less a personage than the Son of God. Remember the story of the woman accused of adultery. A mob stood by, each of which was ready to hurl a stone at the accused woman. Christ never said a word. He merely leaned over and wrote in the sand, "Let him who is without sin cast the first stone" and immediately her accusers dropped their stones and dispersed one by one. Christ looked at the woman, gave her a friendly smile I am sure and said, "Where are your accusers?" There are none," she replied. "Neither do I accuse you," the Master said, "Go and sin no more." And a new life was born then and there.

I also like the story about Christ's entry into the City of Jericho. It was at the height of his career. People crowded the streets to see him. In the group was a tax gatherer, despised by the people of his day, a man without friends, one call Zaccheus. Zaccheus was short of stature, he wanted to see the Christ but he could not see over the mob, so he climbed a sycamore tree. As Christ came by, he was not so impressed by the acclaim of the crowd that he could not see the little man in the tree. And so, he looked up and said, "Come down,Zaccheus. I am going to have dinner with you tonight at your house." And a life was changed right then and there.

These same principles of working with people are as basic today as they were in the days of Christ and King Solomon. We must have a genuine interest in people and a sincere desire to extend a helping hand to others.

We live in a fabulous country, a country that boasts a way of life, a standard of living of $440 billion. But God forbid that we shall ever lose our sense of values in America. Certain basic beliefs are essential if we are to continue our way of life in America. What are these beliefs?

1. Belief in God.
2. Belief in America.
3. Belief in the things that have made America great -- our democratic way of life, our Christian principles.
4. Belief in the things we represent, the things we stand for.
5. Belief in the equal rights of man, regardless of his race, creed, or color.
6. Belief in our own ability to continue to work together as a people, both nation-wide and world-wide.

The story is told of a little girl who was lost in a large wheat field. People went out in all directions to try to find her, but with no success. Finally, a man said, "Let's all join hands and comb the wheat field together." This they did, but they found the little girl too late. The father said, "Would to God we had joined hands sooner."

Nothing can be accomplished without cooperation. Working with people means joining hands and working together. God help us all to understand and practice this great principle.

THE EFFECTS OF INTEGRATION ON MARKETING AGRICULTURAL PRODUCTS

Joseph G. Knapp, Administrator
Farmer Cooperative Service
U. S. Department of Agriculture

To work in the present we must study the future. I am on the way home from California where the future is explosive. A friend at the University of California told me of a population projection which anticipates 75 million people in California by 2020 -- just 62 years from now -- with only one million on farms. This kind of growth can create many problems in the production, marketing, and utilization of agricultural products.

While on the west coast I picked up a copy of Volume I, No. 1, of the California Management Review, published by the Graduate Schools of Business Administration of the University of California. I was especially interested in an article by Edwin Teller, "an adventurous nuclear physicist," and a key figure in the development of atomic and hydrogen bombs. He writes: "The population which in 2050 may be 7 billion will rise by 2150 to more than 20 billion people. I think there will be enough food and still enough energy, but there may not be enough room at that time. In other words, the multiplication of human beings is likely to lead to this problem: How will we live with each other?"

Vertical Integration -- "A Fission-Like Force"

It is appropriate that we now turn to vertical integration which has been described as "a fission-like force turned loose in today's farm products markets." [1]

To make my assigned subject, "The Effects of Integration on Marketing of Agricultural Products," more manageable let's change it to "How Integration Affects the Marketing of Agricultural Products." We will take integration as a fact -- especially vertical integration -- and see how it influences marketing.

For our purpose, vertical integration employs a new approach or the intensification of an old approach in the production and distribution of farm products. The basic idea is that two or more successive steps in these processes are controlled or coordinated by one organization. We may say that through vertical integration the methods of big business are now being applied not only to the marketing of agricultural products and the purchasing of farm supplies and services, but also to the production of farm crops and livestock.

As small independent businessmen, farmers have long produced for a market which they could not control. A whole set of marketing institutions grew up to handle their products, including local handlers, terminal sales agencies, grain exchanges, and livestock commission firms at union stockyards. In the typical situation the farmer relied upon the market made by local dealers who assembled the product and shipped it to terminal markets. The terminal marketing agencies took the product from the local agencies in much the same way, and the competition of buyers and sellers determined prices.

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[1] See Kenneth Hinshaw, "The Challenges in the Vertical Integration of Agribusiness . . . to Information Specialists," American Cooperation, 1958.

This elaborate system is now on the way out. George Mehren of the University of California has caught the spirit of the times in this statement: "There are old channels of marketing, old methods, old types of organizations which 10 to 20 years ago were virile and vigorous and big, and they are not here any more." Later in this same talk which he gave in January, Mehren said: "I think the day of the old open market where any kind of product that happened to get produced would find some sort of home some place -- is gone." 2/

"Vertical integration" is the term commonly used to characterize the change that is taking place. It has caught the popular fancy, partly because it is an expressive term and partly because it can be used by so many people in so many different ways. However, with the focus given by "contract farming," most everyone now understands that "vertical integration" ties together the production and marketing of farm crops into one organization or under one control. When we refer to agriculture as vertically integrated, we mean that farming is meshed into our industrial system -- that it is less and less independent of and more and more an integral part of other industries. 3/

John H. Davis has emphasized this interdependence of agriculture and business with the expressive hybrid word, "Agribusiness," which connotes the business complex related to farming. He uses this word which is related but not synonymous with vertical integration, to embrace the agricultural business of farmers and all the suppliers of farming, the manufacturers and distributors of farm machinery and equipment, feed, fertilizers, and other production supplies, and of all the agencies which handle farm products in some form, the local handlers, the processors and manufacturers, the exporters, the wholesalers, and the mass retailers. Many of these concerns are organized and operated on large-scale lines. 4/

These large-scale firms not only are drawing farming into their own orbits, but they are integrating farming into their operations so that farming is carried on to meet the ends of their integrated businesses. Farming thus tends to become a feeder industry to the processing, retailing and other industries which deal with agricultural supplies or products.

2/ See "The Changing Face of Food and Farming," transcript of an address to United Fresh Fruit and Vegetable Association, January 28, 1958.

3/ For more complete information see "Contract Farming and Vertical Integration in Agriculture, "U. S. Dept. Agri. Inform. Bul. No. 198. See also my talk, "Cooperatives and Integrated Agriculture," Georgia Cooperative Short Course, Athens, Georgia, June 23, 1958 (Mimeograph)

4/ For comprehensive explanation see "A Concept of Agribusiness," by John H. Davis and Roy A. Goldberg, Harvard University, 1957. "By definition, agribusiness means the sum total of all operations involved in the manufacture and distribution of farm supplies; production operations on the farm; and in storage, processing, and distribution of farm commodities and items made from them." (p. 2)

The significant fact is that integration, which is constantly growing throughout industry, is now enveloping many aspects of farming. Farming in the future cannot resist the economic pattern of other industry. It cannot remain a small-scale independent industry and deal with large-scale integrated industry on an equal basis.

Although this trend toward integration has been discernible for some time, it has only recently become a matter of concern. As in so many other situations, we don't become aware of a trend until its effects become apparent, or until its meaning is interpreted by observant analysts. For example, few people recognize the coming of a business recession until it is a well established fact.

The trend toward vertical integration did not come initially from a conscious design. It came as a result of changes made by firms to improve their position in the competitive struggle and it represents the action of many businesses rather than of just a few.

It may be helpful to differentiate here between three forms or stages of vertical integration in production and distribution of farm products: (1) Integration of successive steps in market distribution; (2) Integration of distribution with processing; and (3) Integration of manufacturing with assembling and even production of farm-grown materials. The first form of vertical integration is of long standing. The second and third forms are more recent, and it is here that the distinctive character of the new integration movement is to be noted.

Moreover, vertical integration may come from any direction. It may proceed either from farmers or from traders, processors, and manufacturers. If the vertical integration starts at the farm it can be called "ascending integration, while if it starts at the processing or distribution level and works down to include the farm it can be called "descending integration." No invidious comparison is here intended. Both "ascending" and "descending" forms of integration can serve the interest of farmers if they are organized to make use of them and see that they are operated equitably in their interests. 5/

Contracts Open Farms to Integration

Until recently, vertical integration, for the most part, stopped at the farm gate and didn't come in. However, the force was too powerful to resist. Business firms saw the desirability of controlling farming decisions and operations. They found that they could do this by use of contracts which would provide for production by farmers according to agreed-upon specifications.

Such contracts have long been used in the fruit and vegetable processing, sugar beet and other agricultural industries, but until recently they had not been

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5/ I am indebted to Dr. E. G. Nourse for these expressive terms.

generally adapted to the operation of poultry and livestock production. Then came along the spectacular development of the broiler industry, largely as a result of contracts with producers entered into with feed dealers and processors.

Under this plan, for illustration, a feed dealer working jointly with a processor contracts with a farmer for the production of broilers according to his instructions and specifications. The feed dealer furnishes the chicks, feed and technical management direction, and assures the producer a return per bird for his labor, facilities, and direct supervision of the broiler enterprise.

This plan has appealed to many producers who were glad to produce for a guaranteed income. Within a few years it created a specialized broiler producing area in the Delmarva Peninsula, and it has since spread to Georgia, North Carolina, Maine and several other States. Now we have broilers produced to a large extent under assembly line conditions, with the farmer producing them on almost a piece-rate basis. It is something like the old pre-factory farm-out system under which clothing was manufactured in homes. In other words, the tailoring work was farmed out and done in the home rather than in a central plant.

There may be a further parallel in that the home production of broilers may be supplanted, in turn, by broiler factories. In a current publication there is an article which describes a large broiler producing plant in Idaho which has an annual broiler crop capacity of one million birds. It is designed to supply a chain of 44 food stores. This plant is not a farm. It is a broiler-producing factory. Only seven acres of land are used and the four men who operate the plant live in four houses on the premises. The birds are even supplied with music as apparently happy birds grow fatter faster. Here we have a perfect illustration of vertical integration carried to its ultimate -- the function of the farmer has been absorbed by the chain store. It is hard to call a broiler plant like this a farm, but the question may well be asked, "Is this the farm of the future?" Many people think it may be for certain kinds of farm enterprises.

Should this method of broiler production spread, there will be few broiler-raising farmers to worry about. Contract production of broilers will then be unnecessary, for the farm will be fully integrated into an off-farm business and will be producing without the need of a contract.

I don't want to be too pessimistic just at this point. There is an old adage that it is dangerous to put too many eggs into one basket, and it may be just as dangerous to produce too many birds in one broiler plant. A broiler plant such as I have described calls for a great deal of capital and management ability, and involves a considerable amount of risk. It is a somewhat inflexible type of operation, and it might be hard to manage profitably during a period of general broiler surplus. Without passing judgment on the economic merit of this kind of enterprise, we must recognize that business control over farmers is spreading. Whether we like it or not, we are now seeing a transference of the broiler contract pattern to eggs, pigs, and other products.

It is important to realize that vertical integration is a broad economic force, while contract farming is a manifestation of this force at the farm level. The two terms are not synonymous, for contract farming is but a species of vertical integration. While integration is pervasive throughout industry, contract farming is found only under certain conditions and in certain places. Through contracts specific farming operations are brought under the control of other business firms: that is, they are integrated with them.

In this talk I am concerned with the implications of vertical integration in its broad sense on the marketing of farm products. It is already so well established that our problem is not to stop it but to direct it to best advantage. Its power can be used for farmers if they will grasp the controls of integration through better organization.

Unless farmers substantially control the processes of integration as they relate to the production and marketing of farm products, the days of the family farm as an economic unit are numbered. Farming necessarily is going to be more and more integrated with other industry, and if farmers do not control or participate in the control of the integration, integrating agencies from the outside will control or largely control the farmer's operations. I am not trying to be dramatic, or to scare you with a bogey-man. Vertical integration is going to stay with us and that may be all to the good, for it can be used to strengthen farms as independent business units so as to improve the vitality of our agriculture.

Is Our Marketing Machinery Obsolete?

Integration has already come so far and so fast that most of our agricultural marketing literature is out of date. For example, many of the articles in the 1954 Yearbook of Agriculture on "Marketing" would need to be recast or completely redone to cover the implications of present-day developments in vertical and horizontal integration if they were to be rewritten today.. In the 1954 Yearbook, integration was only incidentally treated, and contract farming was largely ignored. "Agribusiness" had not yet been identified as an area for specialized study.

No revolution can be fully understood by those in the midst of it. We have no scholarly historical studies to explain clearly what is happening. We must therefore do our best to direct the forces of this revolution constructively with whatever insight we can muster.

This fact is clear. Our whole economic system is becoming tightly coordinated through larger and larger firms. Look at the pattern in food retailing, with the growth of chains and supermarkets. Look at the large dairy firms like National Dairies, Borden, and Foremost. Look at General Foods, Swift and Company, and the large chemical corporations. Look at the almost completely integrated major petroleum companies. All of these concerns deal with farmers or farmers' products. They are examples of "descending integration," or integration downward toward the farm.

On the other side, look at the large cooperative marketing organizations which represent "ascending integration," or integration from the farm upward. Many of them are also large concerns: Sunkist Growers, Land O'Lakes Creameries, Grain Terminal Association, the G.L.F., the Southern States Cooperative, The Cotton Producers Association, the Washington Co-operative Farmers, the Poultry Producers of Central California, and many others. These cooperatives have grown large because it takes large integrated organizations to serve the needs of farmers today.

These firms operate in much the same way whether cooperative or non-cooperative, through the employment of professional managers. They differ mostly in the way the benefits are distributed to those who ultimately own and control them. I would like to stress this point here: Integration, like any other economic force or process, can be used by farmers if they are properly organized.

Marketing in a vertically integrated firm, whether cooperative or non-cooperative, becomes an integrated activity. The product is sold only once, at the end of the integration. A chain store system acquires supplies, processes them, transports them and finally sells them to the consumer. All of the operations of the firm are planned and directed toward the final transaction with the consumer. All of the functions are internal functions.

Thus, when we have integrated organizations, we by-pass many of the marketing institutions that have been built up for the use of non-integrated businesses. This explains the decline in the significance of terminal livestock yards, terminal fruit auctions, and other agencies which are not so needed any more, and which in some cases have become actually obsolete.

As a result, we lose our old price-making mechanisms. It is harder to say what products are worth at any stage in the marketing process. Marketing becomes more concerned with the question of matching market power with market power.

This is not a brand new problem in agriculture. As John K. Galbraith has pointed out in his book, American Capitalism, (1952), farmers have been struggling since Colonial days to develop "countervailing power for agriculture." This has led to attempts to set up horizontally integrated cooperative organizations strong enough to achieve some control over supply and provide a base for vertical integration. 6/

Sapiro held that "the iron-clad contract" between the producer and his organization could meet this problem, but as long as these contracts were voluntary complete control over supply could not be achieved. For a time there were advocates of "compulsory cooperation" who favored forcing all farmers into a cooperative to control supply if a majority were in favor of it. This idea in turn, gave way to the crop control program of the thirties.

6/ For more complete information see my article "Cooperative Expansion Through Horizontal Integration," Journal of Farm Economics, November 1950.

However, it is proper to point out that there has been a great change in the strength and character of cooperative organizations since the twenties when Sapiroism was rampant. Farmers are more inclined to work together through cooperatives, and the management, financial standing, and business standards of their cooperatives are much higher. Experience has demonstrated what can be reasonably done. In fact, many large cooperative marketing enterprises are more than able to hold their own with competitive concerns in merchandising efficiency.

The experience of cooperatives of the old Sapiro type indicated that farmers could not generally control production through contracts. Is there any more reason to believe that other forms of corporation can do a better job of controlling production through contracts? Can they control production over a period of time? Is it to their advantage to do so?

The cooperative form of organization at least is motivated by the needs of its members. The motivation of competitive corporations is to serve stockholders who are generally nonfarmers. In the long run, this difference may be of controlling importance. While farmers may resist the efforts toward integration by other firms, they may be willing to accept integration by their own organizations on their own terms.

There is the basic question of why integrate by cooperatives. It is true that the integrated producer must accept restrictions which regulate his operations, no matter how he is integrated, but in a cooperative he can capture his share of the benefits which accrue to the integrating firm and thus strengthen his position as an economic producing unit. In a cooperative he helps set the terms to achieve the ends of the integration through self-descipline, while otherwise they are imposed upon him. 7/

How Integration Changes the Marketing Climate

As integration progresses it influences the climate of marketing. Some of its results are becoming apparent.

1. New marketing institutions are making established marketing institutions obsolete. Farmers are more and more producing to meet stipulated market specifications.

2. Sales agencies such as commodity exchanges, terminal auctions, and futures markets are losing some of their importance as pricing mechanisms.

3. Firms engaged in marketing are growing in size and performing a larger range of marketing and related functions.

4. Risk bearing and producing decisions are being transferred to the marketing firm.

7/ It is here significant, that "independent grocers" have been able to integrate cooperatively and thus preserve much of their independence.

5. Financing is being tied more closely into marketing as more capital is needed to control and direct the movement of the product.

6. Production specialists of integrated concerns are increasingly directing farmer production and marketing operations.

7. There is a growing concentration of power over agriculture by those not concerned with farm welfare as such. Thus marketing institutions -- unless cooperative -- become less and less responsive to producer interests.

8. Marketing and production research is increasingly being directed toward the strengthening of integrated business systems.

These trends are rapidly changing our agricultural environment and the agricultural institutions which have grown up over a long period of years to serve a different type of agriculture. 8/

The Larger Question -- A Free Agriculture

It seems to me significant that there is a growing apprehension in agricultural circles that "specification buying" of high quality farm products to meet the needs of mass markets "will lead inevitably to specification production -- either under contract, as in the broiler industry, or in farms large enough for their operators to make their own deals with large-scale buyers." As Sherman E. Johnson and Kenneth L. Bachman recently said, "The need for production of products of specified quality to meet specification buying cannot be ignored, but the key question is how this need can be met within the challenge of promoting the welfare of farm people and the nation as a whole."9/ It would be indeed ironical if in the pursuit of efficiency by individual firms we were to lose the kind of total agricultural and social efficiency associated with the family farm type of operating unit which has made our nation outstanding in its total agricultural output and in the satisfactions of farm life.

8/ This was foreseen over ten years ago by John D. Black in his challenging article, "Guideposts in the Development of a Marketing Program." Black expressed the belief that the greatest opportunities for increasing efficiency in agricultural marketing lay along the route of vertical integration. Journal of Farm Economics, August 1947.

9/ "Recent Changes in Resource Use and in Farm Incomes," a paper prepared for Conference on Problems and Policies of American Agriculture, Iowa State College, October 2-31, 1958.

Integration can be a disintegrating force if it is not harnessed to the needs of both agriculture and business. There is the danger that it will disperse farmers' interests rather than join them together in programs of mutual interest. This is not an empty possibility. In certain areas, farm producers are largely dependent upon the kind of contract deals they can make. Their freedom of choice in production and marketing may be less than they think.

Is it economically sound for farmers to allow themselves to be drawn into diverse integrated units controlled from the outside? Wouldn't it be more logical for them to integrate through cooperatives to obtain better performance of procurement and marketing functions? Many of our strong cooperatives prove that this can be done.

I would like to give you an illustration of what I am talking about -- the Poultry Producers of Central California. This organization provides an integrated purchasing and marketing service for poultry producers throughout northern and central California. It is big enough to do a job for all the poultry producers in this area. It can procure feed and other supplies for farmers at lowest possible cost and market eggs for them to best advantage. This organization is large and strong enough to employ excellent management and have the latest in modern facilities.

Its San Leandro plant, which I visited early this week, is a model of automation and labor-saving efficiency. It can handle 2,000,000 eggs a day and keep a record of each egg electronically. It can pack, load, and ship under refrigeration without hand labor. It can direct eggs to meet the large quantity market needs of mass distributors.

What advantage would there be in dispersing this operation?

Before we throw away, or let slip, the old -- let us examine whether the best of the old cannot be used in building the new.

Let us guide the future in the light of the lessons of the past -- or do we now accept Henry Ford's dictum: "History is bunk."

I don't accept it. Over the years we have found out how to build strong integrated cooperative organizations that serve well the needs of producers and consumers. They recognize the individual farmer and help preserve his independence.

I hope that integration will be used by farmers to build these kinds of integrated organizations for marketing -- or at least enough of them to preserve the balance in our economy.

I realize that my remarks have been somewhat discursive. Something big is going on in agriculture, and it is hard to get it into proper perspective. However, the subject is so important that it cannot be ignored, and it seems clear that the way in which farmers and their representatives deal with it -- even though they do not fully understand it -- will determine the type of agriculture we will have for many years to come.

DEVELOPING AND OPERATING A MARKETING PROGRAM IN A STATE DEPARTMENT OF AGRICULTURE

Work Group Sessions

TYPES AND SCOPE OF MARKETING ACTIVITIES IN WHICH THE STATES SHOULD ENGAGE

George H. Chick
Maine Department of Agriculture

The topic assigned to me to discuss with you is the various types of marketing activities, both service and regulatory work, that should be carried on by State departments of agriculture. I will not only go into work that is being carried on by the Maine Department of Agriculture, but I will also include activities which I feel should be added to a department to have a broad program.

The first phase of work that I will discuss with you will be market service work. In developing a market service program in a Division of Markets, I think it is essential to have a broad knowledge of the work and activities of extension and research work within the State, together with a cooperative arrangement between the men doing the work and the representatives of the industry which the project aims to help. As an illustration, in Maine we work very closely with the Maine Potato Council, Maine Potato Tax Commission, Maine Poultry Improvement Association, Maine Pomological Society, Maine Dry Bean Tax Commission, and Maine Dairy Council, together with other groups too numerous to mention.

In planning service work, I think it is important to have marketing specialists assigned to various commodities so that they can become a specialist in the marketing of poultry, tobacco, grain, etc. In many commodities I think there is need of further specialization, and I will use potatoes as an illustration. It is my opinion that a marketing specialist can devote his time to expanding the market on potatoes for fresh market, and that there is an entirely new field for a potato marketing specialist to work on expanding the markets for processed potatoes such as potato flakes, potato chips, frozen french fried potatoes, frozen baked potatoes, etc. In working with trade people in the various marketing locations, the same people do not handle the marketing of table stock potatoes that handle the processed product. Another argument for the use of two men within a commodity group is the fact of jealousy between the handlers of fresh fruits and vegetables versus handlers of processed fruits and vegetables. These market service men should work with shippers to encourage better grading and processing, and with wholesalers and retailers to expand the market for the products. A good market man will find opportunities to assist in setting up displays and exhibits for trade associations, etc. He will also contact food editors in the newspaper, magazine, radio, and television fields, and supply them with up-to-date material about the product he is working on.

An up-to-date Division of Markets should be devoting a lot of time in the field of market facilities. This can be developing farmers' markets, large terminal markets in the cities such as the proposed new market facilities for New York City; or it can be work aiding processing plants to improve their facilities. Another broad field of work in marketing facilities is helping some of the small retail groups to improve their layouts in the retail stores. This is a phase of work which we, in Maine, have started during the past year. We find that this is very popular with the small chains or independents, and we have not been able to take care of all the requests for assistance which we have had in this field.

Another phase of work should be the development of better grades and trademarks. In the development of grades, we work very closely with the Agricultural Experiment Station and invariably ask them to conduct experimental projects to help us to determine the quality and size of our various grades and standards. We feel very strongly that these grades should be developed for the consumer. I perhaps should have listed this particular phase of our work first, as I firmly believe that successful marketing work depends on a product that is well graded and identified for the consumer.

Along with a good service work program, I think it is essential to have a good publicity representative. His job should be to help reach the consuming public with information to help expand the sale of the various products. Equally important is to channel information back to the industry groups to keep them informed of the activities of our men in the field. These reports to the industry should include not only the good things said about their product but should also keep them informed on such things as damage from poor loading, short weights, freezing injury, etc. In this way the shipper will be able to correct some of the mistakes made at shipping point. A good publicity man can also channel information and pictures to trade papers, daily newspapers, radio, and television, in fact any media which reaches the consumer, retailer, wholesaler, or shipper. Such a publicity service can also develop movies of the State's various products and arrange a system of distribution to schools, service clubs, theaters, as well as television stations.

The Division of Markets should also develop a market news program for the major commodities within the State. This market news should cover prices to growers, wholesale prices at shipping point, retail prices, and should also include information on the movement and distribution of the importance of the important commodities.

All marketing departments should also include a well-rounded crop reporting service. This service should provide production estimates on important commodities. It should also provide information on tree counts, acreage, livestock numbers, etc.; and annual statistics on major commodities by county as well as State. I am sorry to say in this connection that we do not provide the county figures at the present time, but we are getting a lot of requests to expand our work in this field. A good crop reporting service should also include monthly cold storage reports on commodities and should also show the warehouse holdings on such commodities as cotton, tobacco, etc.

Another broad field of work should be in the regulatory and voluntary inspection service. I use the word "voluntary" due to the fact that some States may carry on Federal-State inspection programs, and a few might carry on State inspection. The regulatory work should be developed to police State branding laws on poultry, eggs, fruits, vegetables, dairy, grain, and any other commodities for which the respective State legislatures might enact compulsory standards. This could also include the enforcement of weights and measures laws. These activities are generally carried out with funds made available by appropriation, and the main purpose of these regulatory laws is to protect the consuming public. In developing an enforcement program, a State department should work very closely with other State departments of agriculture doing similar work but should also work closely with agencies of the Federal Government such as Federal Food and Drug, Perishable Agricultural Commodity Act, and the Federal Trade Commission. We, in Maine, have worked at times with all of the agencies mentioned to our mutual benefit.

Voluntary inspection is generally carried out under a cooperative agreement with the Federal and State Departments of Agriculture, and a fee is charged the user of the service. In many States the fees collected for this work take care of the entire cost of the service. In Maine we have Federal-State inspection on potatoes, poultry and eggs, apples, grain, and cannery inspection; and the work is entirely self-supporting. A few States find it necessary to allocate some State money to supplement the fees charged for voluntary inspection work. Another important phase of work is in the field of marketing orders and agreements. The importance of this work would naturally vary from State to State. As an example, a large agricultural State like California might have as many as 30 orders or agreements in operation; whereas in Maine we are operating under one Federal Potato Marketing Order. If the State wishes to operate under Federal marketing orders rather than State, there is still a chance to cooperate with the marketing order committee to make sure that the marketing order requirements do not conflict with State branding laws. For instance, we find in Maine that we can cooperate with the marketing order committee to our mutual advantage. We inform the market order administrator of any violations of Federal marketing orders which we might run across, and he in turn cooperates with us in the enforcement of our potato branding law.

I believe that all of you realize that the purpose of marketing orders and agreements is to regulate the orderly movement of products. This is generally done by restricting the shipment to certain grades and sizes particularly if the crop in question is large enough to be burdensome, and it is felt necessary to keep some of it off the market in order to secure a fair rate for the portion shipped. In the case where it is necessary to keep any large portion of a crop from being shipped, there is a real opportunity for the marketing division to help develop processing outlets for the product diverted from the fresh market. I think it is fair to say that the Federal marketing order has more teeth when a product goes into interstate commerce, as the State does not have any authority after the product has crossed the border. However, there is one real advantage to a State marketing order as most of them provide facilities for raising money for promotion which is not possible in a Federal marketing order.

With the farmers' share of the consumer's dollar continually decreasing as marketing costs rise, I think that all of the departments should consider very seriously the advisability of including a transportation specialist on their staff. This man could devote his time to the adjustment of both truck and rail rates for agricultural interests within the State. He might be able to secure tariffs on certain commodities to the benefit of the agriculture in the State, and he might channel out information from the department to the agricultural interests so that they would be better informed on truck, rail, and water rates.

In conclusion, the Division of Markets should be prepared to cooperate closely with the various agencies of the U. S. Department of Agriculture, with the college of agriculture within their State, and with industry councils and committees representing the commodities produced and marketed within their State. I would like to briefly list a few illustrations of cooperation that I had in mind. The Division of Markets could cooperate with the Agricultural Marketing Service in developing service programs for their State. For this you would work, of course, with William Crow and Leighton Foster. If the State wished to develop a Federal-State inspection service, there again you would cooperate with the Fruit and Vegetable Division of the Agricultural Marketing Service. Or if you wanted to develop a grain inspection service, it would be the Grain Branch. We call on the Maine Agricultural Experiment Station to cooperate in setting up projects to determine the value of point-of-sale material used by our service men. The Experiment Station has also set up a control project at the request of the department and industry people to evaluate some of the industry advertising. We work with the industry councils and committees to find out problems that they need help on in the field of marketing and secure their assistance in developing our programs. We also request industry tax committees to furnish our market men with point-of-sale material to use in the field without cost to our department.

The main thing I have tried to do this morning is to stimulate your thinking on marketing work. In the allotted time, however,it was impossible to go into too much detail. I also realize that in my discussion, I perhaps have dealt too heavily on work that we carry on in our own State. However, if my remarks have encouraged you to take an active part in the development of an effective marketing program for your department of agriculture during the next two or thre days, I will feel well rewarded.

TYPES AND SCOPE OF MARKETING ACTIVITIES IN WHICH THE STATES SHOULD ENGAGE

John A. Winfield
North Carolina Department of Agriculture

t would be simple to say to you today that the States should engage in all ypes of marketing activities affecting agricultural products produced within he States and that the scope of this activity should be broad enough to cover ll marketing activities between the producer and the end user.

his of course is impossible to accomplish. So it follows that we must attempt o find activities that will improve agricultural marketing in our respective tates, and set up the best programs possible to improve quality, cut marketng costs, and expand outlets.

n setting up these programs, we must give first consideration to assigned esponsibilities by legislative acts and to administrative directives which ome, in our State, through the Commissioner and Board of Agriculture.

here is a wide variation between the marketing duties assigned State departents of agriculture by legislative acts in the various States. This, in my pinion, is as it should be, because conditions vary to such a great extent ver the country that most State and local governing bodies are in a better osition to determine what marketing activities should be programed and what gency of government should have the responsibility for administering these pecific programs.

n Virginia, the Division of Markets is responsible for administering weights nd measures laws. The Crop Reporting Service is a part of the Markets Division f the California Department of Agriculture. The distribution of surplus foods s a responsibility of the Markets Division in North Carolina.

ach of these activities has an indirect, if not a direct, purpose to help in oving agricultural commodities from producers to end users.

here are times when some of us grope in the dark to find specific marketing ctivities to improve acceptance of our products at the market place and cut osts in preparing and moving these products from the farm to consumer. Our rustration seems to increase when we see surpluses and falling prices. I ope this frustration will not cause us to disregard basic economic principles nd set up temporary marketing programs to catch headlines, rather than trengthen existing programs that have been tried in the fires of experience.

et me hasten to add here that we should change the direction of our marketing rograms to discard obsolete ideas and methods and add innovations, with shifts n consumer preferences and changes in production patterns. These changes, owever, should come only after careful deliberation by experienced market service program policy makers. And, they should be based on facts rather than fantasy or rearranged prejudices.

Dr. Lowell S. Hardin of Purdue, in a recent paper, said - and I quote - "Agricultural marketing is no exception to the general rule that increasing problems grow out of Technological and Social changes. Marketing people have problems because:

1. The marketing system is large and growing.

2. So much is expected of the marketing system.

3. The marketing system is making changes so fast that our mental calculators are being pushed to keep up with management challenges.

4. Costs in agriculture are high relative to prices received. Marketing people are expected to see to it that farm costs are lowered.

5. Prices received by farmers are low. Marketing people must make the middleman more efficient, so he can pay the farmers more for their products.

6. Supplies of farm products are excessive. Marketing people are supposed to be merchandising marvels and market the surpluses at a good price by opening new markets at home and abroad."

We believe that a well-balanced marketing program should be designed to move toward three objectives:

1. Maintain and improve the quality of agricultural products - with emphasis from harvest to end user.

2. Reduce marketing costs -- particularly in grading, packaging, processing, and transporting.

3. Expand market outlets -- with emphasis first on major agricultural products produced in our State -- and second on minor agricultural products that are being produced or can be produced and moved to market, provided, (a) we can compete, and (b) there is a desire on the part of producers to expand or begin production of these so-called minor commodities.

We attempt to select only that type of marketing activity or program that can be directed toward either one or more of the three objectives outlined above.

We emphasize official certification or grading programs because we believe thes programs improve and maintain quality and help to expand outlets.

We try to do a good job in administering the Handlers Act, The Seed Potato Law, The Egg Market Act and the Cooperative Act because we believe these laws were passed by our Legislature to improve the movement of agricultural products fro farm to end users.

We also believe that our market news programs are indispensable because producers are able to find out in most instances before moving products to nearby markets what prices they should receive for these products at these markets. We think our Surplus Food Distribution Program helps to move needed foods into consumer channels, and that our program in transportation helps to reduce marketing charges and to find more and better outlets.

These marketing programs are carried out either under traditional old-line cooperative agreements -- with USDA -- or as straight State functions.

Our matched fund, or AMS marketing service programs, are operated under five project titles. Four of these are in the Division of Markets. The fifth, basic data, is in the Statistical or Crop Reporting Division of our Department of Agriculture.

These programs are designed primarily to help solve pressing marketing problems that we have become familiar with through our field work in grading agricultural products, administering regulatory acts, or collecting and disseminating market news information. We design these programs to improve quality, cut costs and expand market outlets. We change the programs, if we get desired results, or if the results we get are unsatisfactory.

These programs provide individual or group assistance in preparing products for market, improving quality and trade acceptance, or in cutting marketing costs by increasing efficiency.

There is a second type of marketing activity that we stress. For lack of a better term, we refer to it as promotional (expanding market outlets).

1. We conduct, or help conduct, surveys to determine needs for new facilities. We obtain assistance from research and extension personnel in these activities, and also from personnel in the State Department of Conservation and Development.

2. We work closely with organized commodity groups. Our personnel serve as exofficio members on the Board of Directors of some of these groups, and sometimes as executive secretaries if the groups are too small to have full-time people for this purpose.

3. We maintain complimentary memberships in trade associations and serve in advisory capacities with most of these groups.

4. We do direct selling for new producer groups on a temporary basis with the idea of training management in these groups to do this job. We assist private selling organizations, when called on, for selling leads.

5. We prepare specific information covering supplies, locations, etc., for mass trade distribution.

In summary: We try to follow four principles in determining the types and scope of marketing activities that we engage in.

1. We try to be versatile in changing the type of marketing activities that we call demonstrational, or promotional, to fit day-to-day or season-to-season production and marketing conditions in the different commodities produced in our State.

2. We try to change our technical marketing programs (plant and machinery layouts) as new research information becomes available to improve quality and reduce costs in packaging, processing, and moving agricultural commodities to market.

3. We try, through conferences with other agencies, producers, and trade groups, to make these changes and to promote their acceptance as the best way to use our available resources to improve marketing. We have been fortunate in most instances in receiving over-all cooperation.

4. We believe that old-line marketing programs (grading, regulatory, market news) improve product quality, cut costs, and expand outlets and, therefore, should be coordinated with other programs and strengthened.

In closing, and with your permission, I would like to recommend that we

1. Devote as many resources as possible to market service activities.

2. Define these activities.

3. Assign responsibilities for programing these activities to the division of your department best qualified to administer same.

4. Insist that where twilight zones exist between departments of Government or divisions within departments regarding the administration of marketing activity programs, that conferences between policy makers, and at lower levels, be used (a) to prevent resource waste through overlapping and (b) to secure coordination among personnel.

TYPES AND SCOPE OF MARKETING ACTIVITIES IN WHICH THE STATES SHOULD ENGAGE

C. J. Carey
California Department of Agriculture

In approaching the subject indicated in the title of this paper, the speaker is frankly influenced by the types and scope of the marketing activities with which he is most familiar, and with which he has been continuously and intimately associated for some 25 years. Accordingly, our remarks are prepared with the aid of guidelines which for us have consistently achieved what we sincerely believe to be an effective marketing program, soundly based upon service and enforcement.

We cannot presume, as a matter of fact, to say categorically what are the types and scope of marketing activities in which the States should engage; we may review the types and scope of marketing activities in our own State, listen to the remarks of others on the subject, and hope that such a discussion will be profitable and stimulating for all concerned.

The functions of our State Department of Agriculture, exclusive of interior office administration, have been assigned to three divisions, each devoted to one major field of California agriculture. These are the Divisions of Animal Industry, Plant Industry, and Marketing.

The Division of Animal Industry, consisting of five Bureaus, is concerned with all matters touching livestock, such as the control of livestock diseases, meat inspection, sanitation of slaughtering facilities, poultry inspection, hide and brand regulations, inspection and identification of cattle moved to market, and the sanitation of dairies throughout the State.

The Division of Plant Industry consists of seven Bureaus: Entomology, devoted to the control of insect pests; Plant Quarantine, which protects California industry from pests which might otherwise enter our boundaries; Plant Pathology, which studies plant diseases and methods of controlling them; the Bureau of Rodent and Weed Control and Seed Inspection, whose title explains its duties; the Bureau of Field Crops, which inspects the manufacture and sale of all commercial food stuffs and the warehousing of agricultural products under bond; our new Bureau of Nursery Service, which is a self-supporting function with funds derived from licenses issued to sell nursery stock, and with fees from the registration and certification programs it conducts; finally the Bureau of Chemistry, which certifies commercial fertilizers, agricultural minerals, and economic poisons, and which supervises the removal of spray residue from fruits and vegetables so that the public health will not be endangered.

The Division of Marketing consists of eight bureaus each of which is vitally concerned with a particular phase in the marketing of about 250 commercial crops grown and produced in California. Incidentally, cash receipts from California farm products during 1957 amounted to about two billion, eight hundred million dollars. Thus it is immediately apparent that the marketing of California agricultural commodities plays not only an important but actually an indispensable part in the economy of the State.

Before describing the functions of the several Bureaus devoted to the tasks assigned in the Division of Marketing, it might be well to seek a reasonable definition of the term "marketing." Agricultural marketing may be said to be the complex operation of distribution and sale of farm products--it is the final phase of the long cycle from planting to consumption of the finished product. Successful and orderly marketing is the actual fruition of all other activities: The preparation of the soil, plantings, irrigation, fertilizing, protecting from pests and diseases, and all processes of growing the commodity. Marketing is the last act in the great agricultural drama which recurs yearly, and upon it depends, in final analysis, the balanced welfare and diversified wealth of our State.

Our Legislature has consistently encouraged and supported this vital function of marketing of agricultural commodities by the enactment of advanced agricultural laws. It has thrown about the marketing of agricultural products every conceivable protection. It is the duty of the Division of Marketing, through its eight Bureaus, to administer and enforce these laws and regulations as they apply to each of the specialized phases of the marketing picture.

The types and scope of marketing activities in which any State should engage obviously should be related to the importance of agriculture in the State, the movement, kinds and value of the various crops produced and marketed, and the nature of marketing problems. Generally speaking, agricultural producers in any State will endeavor to establish the kinds of marketing services which they believe are necessary and proper for the State to undertake. Certainly this has been true in the State of California, where over the years, farmers, through the State Legislature, and otherwise, have established the various types of marketing activities now supervised in our Division of Marketing. The scope and extent of activities, the number of employees, and the annual expenditures for each of these types of services are geared to the needs of the farm people of the State.

The eight Bureaus in the Division of Marketing naturally fall into three loosely divided categories: Service, Control, and Enforcement.

Three Bureaus are known as service agencies: Shipping Point Inspection, Market News, and the Crop Reporting Service. All these activities, which will be touched upon later, are carried on under the joint auspices of the State and Federal Departments of Agriculture.

Two Bureaus, those of Markets and Milk Control, exercise marketing controls and price structures, and of course assign a certain amount of time to the enforcement of their established marketing programs.

Three of the Bureaus are almost entirely devoted to the matters of law enforcement: Weights and Measures, Fruit and Vegetable Standardization, and Market Enforcement.

While all the time allotted here might well be exhausted in detailing the duties, functions, and activities of any one of these agencies, an attempt will be made briefly to describe the activities of each. Through this method of approach we shall be able to witness the coordination of the several Bureaus, and the several parts they play in marketing as a whole.

We shall first turn our attention to the three service Bureaus:

Federal-State Market News Service. This agency receives over State leased wires daily price and movement data on farm products from shipping points in this State, and transmits them over U. S. Department of Agriculture wires for dissemination to market centers; it receives similar information over U. S. Department of Agriculture wires from important market centers regarding prices and arrivals, and transmits it over State leased wires to California points interested. This Bureau has approximately 104 permanent employees, and 31 temporary employees, and operates on a budget of $612,441.46.

Federal-State Shipping Point Inspection Service. This bureau inspects and certifies farm products in relation to Federal or special grades; certificates issued are prima facie evidence of the grade at the time of inspection. This agency has approximately 111 permanent employees, and 234 temporary employees, and operates on a budget of $1,731,976.

The Federal-State Crop Reporting Service forecasts crop and livestock production for California for consolidation into U. S. Crop Forecasts; prepares summaries and reports of California production and farm crop values. It carries on certain research work, based upon objective sampling techniques, to develop more accurate methods of estimating crops. This Bureau has approximately 39 permanent employees, and 45 temporary employees, and operates on a budget of $266,073.

Our next general classification with the Division embraces those agencies whose major activities are along the lines of controlling marketing, with the collateral function of enforcement.

The Bureau of Markets administers The California Marketing Act and other general marketing laws under which the self-help marketing programs are operated to control surpluses, and to carry on educational, research, and promotion programs, and to control unfair practices. About 30 of these programs are now in operation. Considerable interest is being shown in the principles of the California Marketing Act in the drafting of State and Federal legislation.

At the present time, there are in effect under California laws 32 programs, 30 of which are in effect under our California Marketing Act, and 2 under special laws. There are also in effect at this time 15 Federal marketing agreements and orders. Under our California Marketing Act, it is estimated that in the last fiscal year ending June 30, 1958, there were something over 35,000 producers and nearly 3,200 handlers participating in these programs. During this period, assessments totaling over $8,500,000 were collected during the 1957-58 fiscal year, and nearly $5,000,000 of this total was used for advertising and trade promotion activities. It would be reasonably safe to say that the total value of the farm products covered by the Federal and State marketing agreements and orders last year would reach at least $850,000,000. Each year, several new programs are developed and placed into operation, so that marketing orders and programs in California have now become a well established and accepted aid in our marketing efforts.

The Bureau of Markets also assists producers regarding cooperative organization and renders general marketing service. This Bureau has approximately 43 permanent employees, and operates on a budget of $298,212 and handles in addition about $8,500,000 of advisory board monies.

The Bureau of Milk Control establishes minimum prices which distributors pay to producers for fluid milk, and establishes the minimum wholesale and minimum retail prices for fluid milk; it enforces unfair practice provisions relating to milk and dairy products. This Bureau has approximately 100 permanent employees, and operates on a budget of $1,083,664.

We may now devote our attention to the three remaining Bureaus, which are almost exclusively law enforcement agencies:

The Bureau of Fruit and Vegetable Standardization deals primarily with law enforcement. It supervises work of County Agricultural Commissioners in enforcing minimum standards for fruits, vegetables, eggs, honey, and poultry labeling, and also handles canning tomato inspection and seed potato certification. This Bureau has approximately 47 permanent employees, and 610 temporary employees, and operates on a budget of $1,129,314.

The Bureau of Market Enforcement enforces the Produce Dealers and Processors Acts, under which commission firms, processors, and produce buyers are required to be licensed and under which they must pay for and give a correct accounting for all produce handled. This Bureau has approximately 37 permanent employees, and operates on a budget of $317,655.

The Bureau of Weights and Measures supervises work of County Sealers of Weights and Measures in checking scales and measuring devices, gasoline pumps, checking minimum weights on packaged foods and other products, checking gasoline, motor oils, brake fluid, and antifreeze compounds. This Bureau has approximately 42 permanent employees, and operates on a budget of $353,376.

In addition, three of our Bureaus, namely, Federal-State Crop Reporting, Markets, and Fruit and Vegetable Standardization, carry on various types of research and survey projects, a portion of which is based upon Federal-State matching funds.

The Office of the Division of Marketing--Our Division of Marketing office, with W. J. Kuhrt as Chief, has the responsibility of supervising the work of these 8 separate bureaus engaged in the administration and enforcement of the various types of marketing services and legislation. I am grateful to Bill Kuhrt for his assistance in preparing these remarks.

Marketing is the largest division in our Department. Summarizing the statistics relative to the various Bureaus, including their field offices, there are approximately 525 civil service employees. To this must be added nearly 1,000 temporary employees, most of whom are seasonal inspectors of fruits and vegetables and other agricultural commodities. The budget for the Division and the 8 bureaus appropriated by the Legislature for the current season totals $5,632,528. To this amount must be added the Marketing Act Trust Funds, which are not appropriated by the Legislature, but which are handled by our Department, in the amount of approximately $8,500,000 per year.

On the basis of experience in the administration and enforcement of the various laws involved in the marketing of farm products, we have before us certain problems upon which we are giving considerable attention. One of these arises from the fact that our minimum standards of quality, maturity, and pack for fruits and vegetables are established in our Agricultural Code, and can be modified only by our State Legislature every two years. Obviously there is need for greater flexibility in making modifications in these standards, particularly where the standards happen to be relatively high, since the quality of crops varies substantially from season to season, and there are times when hardships may result to producers from the strict application of the standards. We believe it would be more feasible if our Director were authorized in our Agricultural Code to make modifications of these standards by rule or regulation, and in accordance with legislative standards provided in the Code. This observation is particularly important with respect to container standards. Container needs seem to be changing so often that there is need for greater flexibility to keep standards reasonably current.

We have many other problems which may be mentioned briefly: These would include recruiting and training employees; problems of enforcement; adjusting laws, regulations, and procedures to rapidly changing methods and practices in agricultural marketing. But these latter problems are to be expected in the administration of a Department as large as ours.

In conclusion, it may be said that in our Department, constant study is addressed to the complex science of intelligent and effective marketing in all its phases, so that the type, scope, and complexion of our program and of our services may best meet the challenges presented by a vigorous agricultural economy.

CONCLUSIONS AND RECOMMENDATIONS

On what an effective marketing program should consist of

"Marketing work in many States has grown like Topsy."

This was the only logical deduction that could be made by Commissioners, Marketing Chiefs, and other marketing program administrators early in the work group sessions as they considered the content and structure of an effective marketing program for a State department of agriculture.

Early speakers developed the fundamental thesis that any department must first consider the legislative acts and administrative directives for which it is responsible in marketing. "However," they stated, "these departments must also recognize the necessity of influencing the direction of marketing programs to discard obsolete ideas and methods and add innovations in line with an expanding, modern agriculture and shifting consumer preferences.

"We acknowledge that in many States the development and major modification of a department of agriculture and its division of markets is the ultimate responsibility of the legislature. Informed agricultural officials, however, can assist--and perhaps influence--legislative leaders in such matters."

During the discussion of the various types of marketing activities in both the areas of regulatory and service that are now being administered by a department, it was emphasized that there are at least three major objectives of any marketing program which should be met:

(1) Maintain and improve quality,

(2) Reduce marketing costs,

(3) Expand market outlets.

As a conclusion of its first session, this group developed the following list of functions which are not recognized as being exclusively marketing functions by all assembled, but are now being administered by one or more State Department of Agriculture Marketing Division:

1. Market News
2. Inspection and grading:
    - commodities
    - field crops
3. Inspection:
    - wholesomeness
    - warehouses
4. Marketing development and expansion
5. Commodity sales promotion
6. Statistical information
7. Crop and livestock reporting
8. Marketing orders and commodity commissions
9. Weights and measures
10. Transportation service
11. Marketing facilities and engineering
12. Dealer licensing and bonding
13. Service to cooperatives
14. Agricultural fairs
15. Commodity regulatory services
16. Surplus food distribution
17. Information and public relations
18. Credit authority
19. Standardization -- establishment of grades
20. Buying and selling of agricultural supplies
21. Seed testing
22. Poultry improvement and testing

ORGANIZATION CHARTS OF MARKETING WORK
IN
REPRESENTATIVE STATES

Don Wilkinson - Wisconsin, Department of Agriculture, Secretary
National Association of Marketing Officials

An organization chart is normally designed to graphically illustrate the lines of authority and supervision existing in an agency. Such charts can run the gamut from masterpieces of artistry to a simple collection of connecting lines and boxes.

A rapid study of the organization of State agriculture and of marketing specifically will indicate that there are almost as many organization charts as there are States. However, when one begins to look beyond the details of whether a chart is diagramed vertically or horizontally and whether there are interlocking dotted lines of liaison, there then develops some similarity, at least in types of organization.

Four States Selected

For our presentation, we have selected the charts of four States which in several ways represent different systems of organization. Since we are more concerned at this time with the technique of organization than we are with the characteristics of the States, I will attempt to the best of my ability not to identify these States.

We are, however, very much indebted to these States' representatives who so willingly supplied their charts and background information. We ask their forgiveness for the liberties which have been taken in making minor modifications for the purpose of emphasizing certain points. We are also appreciative of the work done by USDA personnel in the development and preparation of these charts for our use.

In the case of three of the States, we have two charts each. The first is that of the organization of the State department of agriculture. The second is that of the organization of the division of markets within the department. In the case of State B, it was felt advisable to have a third chart to indicate the marketing work which takes place outside of the State department of agriculture.

Color Designates Marketing Function

As was indicated during the first session of this work group, there is a difference of opinion among States as to what is and what is not a marketing function. For our purpose at this work group, we have assumed that if there are some States that consider certain functions as marketing, then we will indicate through the use of our color system where within the State department of agriculture those functions exist even though they may not be under the division of markets. 10/

On the organization chart for the department we have shown all the divisions or bureaus. Through the use of color we attempt to distinguish between those divisions that have some marketing function and those that do not. The divisions on the chart that have no red are not administering a marketing function. The ones that are solid red deal entirely with marketing service and regulatory activities. Those with the red border have functions other than marketing but also have one or more marketing activity, in which case we have shown under the name of the division the marketing function performed in the division.

As we study these charts may I remind you that our task in this work group is not entirely to publicly praise or critically dissect the organizational structure of these States but to glean the best from each for the development of what we might consider to be the proper organization chart for marketing work in a typical State.

State A, Chart I, Department Organization

This Department of Agriculture is administered by a Director appointed by the Governor. A Deputy Director appointed by the Director is the only employee in the regular service of the department who is exempt from civil service (fig.1).

A 10-man State Board of Agriculture appointed by the Governor and representative of all major segments of agriculture advises the Director on policy. An Assistant Director and regional coordinators assist in the total administration of the department's program.

This department is relatively simply organized in four major divisions: Administration, Marketing, Plant Industry, and Animal Industry.

Administration

The Division of Administration consists of the areas of Accounts and Disbursements, Agricultural Information, Personnel, Library and Publications, Qualifications, Photography and Illustrative Material, and Central Office Services.

As indicated only the area of Agricultural Information may be considered a possible marketing function under this division.

10/ In the reproduction of these organization charts presented in the proceedings (figs. 1-9). The solid red appears as solid black and the red border as a black border.

STATE A

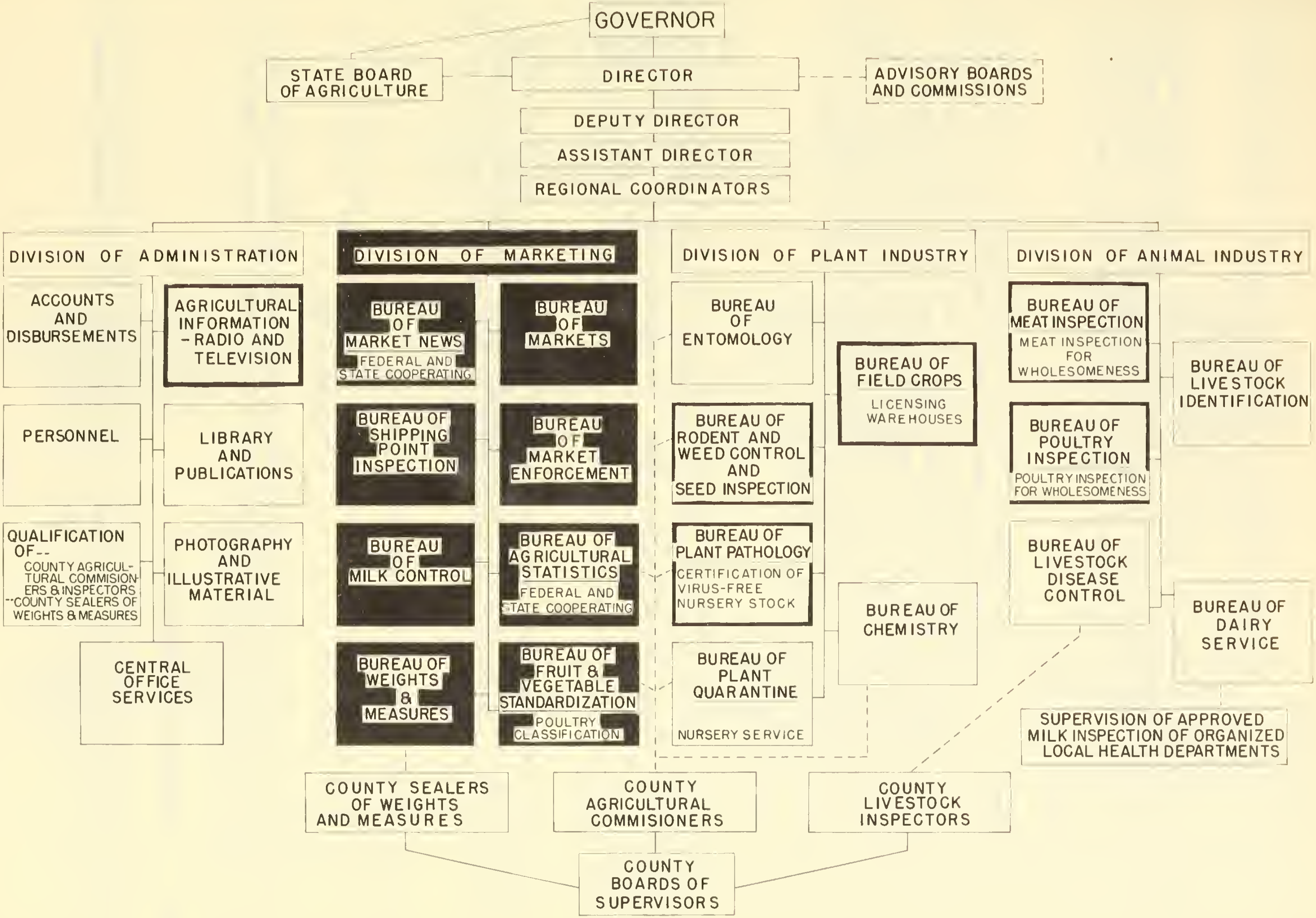

GOVERNOR
STATE BOARD OF AGRICULTURE
DIRECTOR
ADVISORY BOARDS AND COMMISSIONS
DEPUTY DIRECTOR
ASSISTANT DIRECTOR
REGIONAL COORDINATORS
DIVISION OF ADMINISTRATION
ACCOUNTS AND DISBURSEMENTS
AGRICULTURAL INFORMATION - RADIO AND TELEVISION
PERSONNEL
LIBRARY AND PUBLICATIONS
QUALIFICATION OF-- COUNTY AGRICULTURAL COMMISIONERS & INSPECTORS --COUNTY SEALERS OF WEIGHTS & MEASURES
PHOTOGRAPHY AND ILLUSTRATIVE MATERIAL
CENTRAL OFFICE SERVICES
DIVISION OF MARKETING
BUREAU OF MARKET NEWS
FEDERAL AND STATE COOPERATING
BUREAU OF MARKETS
BUREAU OF SHIPPING POINT INSPECTION
BUREAU OF MARKET ENFORCEMENT
BUREAU OF MILK CONTROL
BUREAU OF AGRICULTURAL STATISTICS
FEDERAL AND STATE COOPERATING
BUREAU OF WEIGHTS & MEASURES
BUREAU OF FRUIT & VEGETABLE STANDARDIZATION
POULTRY CLASSIFICATION
DIVISION OF PLANT INDUSTRY
BUREAU OF ENTOMOLOGY
BUREAU OF FIELD CROPS
LICENSING WAREHOUSES
BUREAU OF RODENT AND WEED CONTROL AND SEED INSPECTION
BUREAU OF PLANT PATHOLOGY
CERTIFICATION OF VIRUS-FREE NURSERY STOCK
BUREAU OF CHEMISTRY
BUREAU OF PLANT QUARANTINE
NURSERY SERVICE
DIVISION OF ANIMAL INDUSTRY
BUREAU OF MEAT INSPECTION
MEAT INSPECTION FOR WHOLESOMENESS
BUREAU OF LIVESTOCK IDENTIFICATION
BUREAU OF POULTRY INSPECTION
POULTRY INSPECTION FOR WHOLESOMENESS
BUREAU OF LIVESTOCK DISEASE CONTROL
BUREAU OF DAIRY SERVICE
SUPERVISION OF APPROVED MILK INSPECTION OF ORGANIZED LOCAL HEALTH DEPARTMENTS
COUNTY SEALERS OF WEIGHTS AND MEASURES
COUNTY AGRICULTURAL COMMISIONERS
COUNTY LIVESTOCK INSPECTORS
COUNTY BOARDS OF SUPERVISORS

Figure 1

Division of Marketing

In this division, and the remaining two of this department, you will notice that areas of responsibility are designated as bureaus.

Under this division we find the Bureau of Market News, the Bureau of Markets, the Bureau of Shipping Point Inspection, the Bureau of Market Enforcement, the Bureau of Milk Control, the Bureau of Agricultural Statistics, the Bureau of Weights and Measures, and the Bureau of Fruit and Vegetable Standardization.

Division of Plant Industry

In this division we find the Bureau of Entomology, the Bureau of Field Crops which is indicated as containing the possible marketing function of warehouse licensing, the Bureau of Rodent and Weed Control and Feed Inspection which administers the marketing function of feed inspection work, the Bureau of Plant Pathology which because of the responsibility of certification of virus free nursery stock is also circled as containing a marketing function. The Bureau of Chemistry which is responsible for the registration, labeling, sale, commercial application and use of agricultural chemicals,and the Bureau of Plant Quarantine are also in this Division.

Division of Animal Industry

In this division the two Bureaus of Meat Inspection and Poultry Inspection are both indicated as containing the possible marketing function of inspection for wholesomeness of their respective products. In addition there is the Bureau of Livestock Identification, the Bureau of Livestock Disease Control, and the Bureau of Dairy Service, which is responsible for the inspection of sanitation of milk and milk products.

It should be pointed out that this department is charged by law with certain duties and responsibilities which are performed under the department supervision by county agricultural representatives as indicated by the broken line.

State A, Chart II, Marketing Organization

May we now take the Division of Marketing and diagram it horizontally as is done in Chart II (fig. 2).

In this State we find that the Chief of the Division of Marketing has the responsibility of supervising in a general way the work of eight bureaus, each with a chief and an assistant chief.

Bureau of Agricultural Statistics

The Bureau of Agricultural Statistics, more generally known as the Crop and Livestock Reporting Service, operates under a cooperative agreement between the United States Department of Agriculture and State A.

STATE A

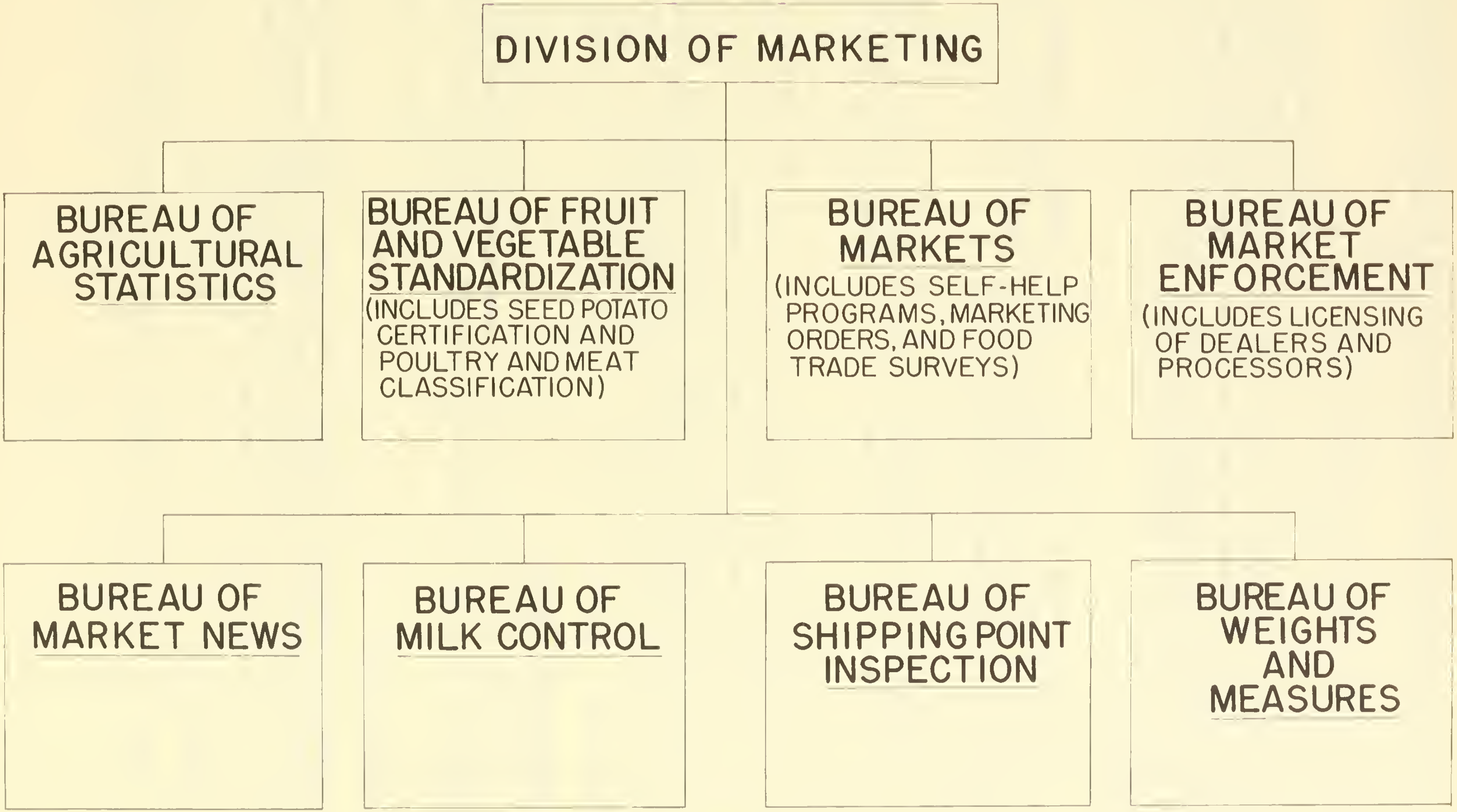

DIVISION OF MARKETING
BUREAU OF AGRICULTURAL STATISTICS
BUREAU OF FRUIT AND VEGETABLE STANDARDIZATION
(INCLUDES SEED POTATO CERTIFICATION AND POULTRY AND MEAT CLASSIFICATION)
BUREAU OF MARKETS
(INCLUDES SELF-HELP PROGRAMS, MARKETING ORDERS, AND FOOD TRADE SURVEYS)
BUREAU OF MARKET ENFORCEMENT
(INCLUDES LICENSING OF DEALERS AND PROCESSORS)
BUREAU OF MARKET NEWS
BUREAU OF MILK CONTROL
BUREAU OF SHIPPING POINT INSPECTION
BUREAU OF WEIGHTS AND MEASURES

Figure 2

I believe the work of this bureau is understood by all but it would be well to point out that in this State it is definitely considered a marketing function.

Bureau of Fruit and Vegetable Standardization

This bureau administers the standards relating to quality, maturity, pack, size, and labeling of commodities covered by their agricultural code, both fresh and processed. In addition, the bureau conducts surveys to obtain the facts for the benefit of industry members as well as administers the seed potato certification program. Administration of the standards for all poultry and rabbit meat is also the responsibility of this bureau.

Bureau of Markets

The Bureau of Markets' work is divided into three general categories: (1) General marketing service; (2) administration and enforcement of the several marketing control laws; and (3) the handling of marketing surveys in cooperation with the Agricultural Marketing Act of 1946.

General marketing service, as the name implies, includes assistance to groups of farmers and handlers of farm produce in the solution of their agricultural marketing problems as well as assistance to farm groups and cooperative organizations.

The principal activities of this bureau have to do with the administration and enforcement of the agricultural marketing control laws and their resulting market orders, market agreements, and marketing programs.

Under the cooperative agreement with USDA for matched fund work, this bureau conducts surveys of the marketing and distribution problems of various agricultural industries for the purpose of developing new and larger markets and the expansion of sales of products.

Bureau of Market Enforcement

Protection for producers of farm products is assured through the licensing of dealers and processors and the administration of a strict code of fair practice by this bureau.

Bureau of Market News

Under a cooperative agreement with USDA, this bureau operates the Federal-State Market News Service which, from administrative headquarters as well as several field offices, collects and disseminates daily information on the major agricultural products produced and marketed in the State.

Bureau of Milk Control

It is the responsibility of this bureau to administer and enforce the State Milk Control Act which is designed to insure an adequate supply of pure wholesome milk at a fair and reasonable price. Principal activities fall in the two general classifications of minimum price fixing and enforcement of the Act in the State's 37 milk marketing areas.

Other dairy product marketing statutes dealing with fair trade practices are also administered by this bureau.

This bureau also cooperates in the administration of the State Dairy Industry Advisory Board Act. This board is financed by an industry-approved levee on the production of butterfat which funds are used for conducting research, advertising, publicity, and education programs designed to increase consumption of dairy products and to gather and disseminate scientific information on milk and milk products.

Bureau of Shipping Point Inspection

Under a cooperative agreement with USDA, the Federal-State Shipping Point Inspection Service for fruits and vegetables is conducted by this bureau. This is a voluntary self-supporting financial program with no regulatory powers or duties.

Bureau of Weights and Measures

This bureau has jurisdiction over the statutes and code applicable to weights and measures and petroleum.

It might be noted that in the case of State A, the total department's organization chart presents a fairly detailed picture of not only the work of each division but of the major responsibilities of the bureaus within the division.

State B, Chart I, Allied Organizations

May we first explain that in this State there are several boards or commissions responsible for marketing work that are not under the State Department of Agriculture but are responsible directly to the Governor. Chart I (fig. 3) was developed to show the relationship of these agencies with the department.

In this State the people elect among others the Governor, the Attorney General, the Commissioner of Agriculture, and the County Commissioners.

In the areas which we might consider as administering marketing functions but not under the direct administration of the Commissioner of Agriculture, we find the following organizations:

The Agricultural Experiment Station, which in this State cooperates with the Federal-State Statistician in the collection and dissemination of marketing information.

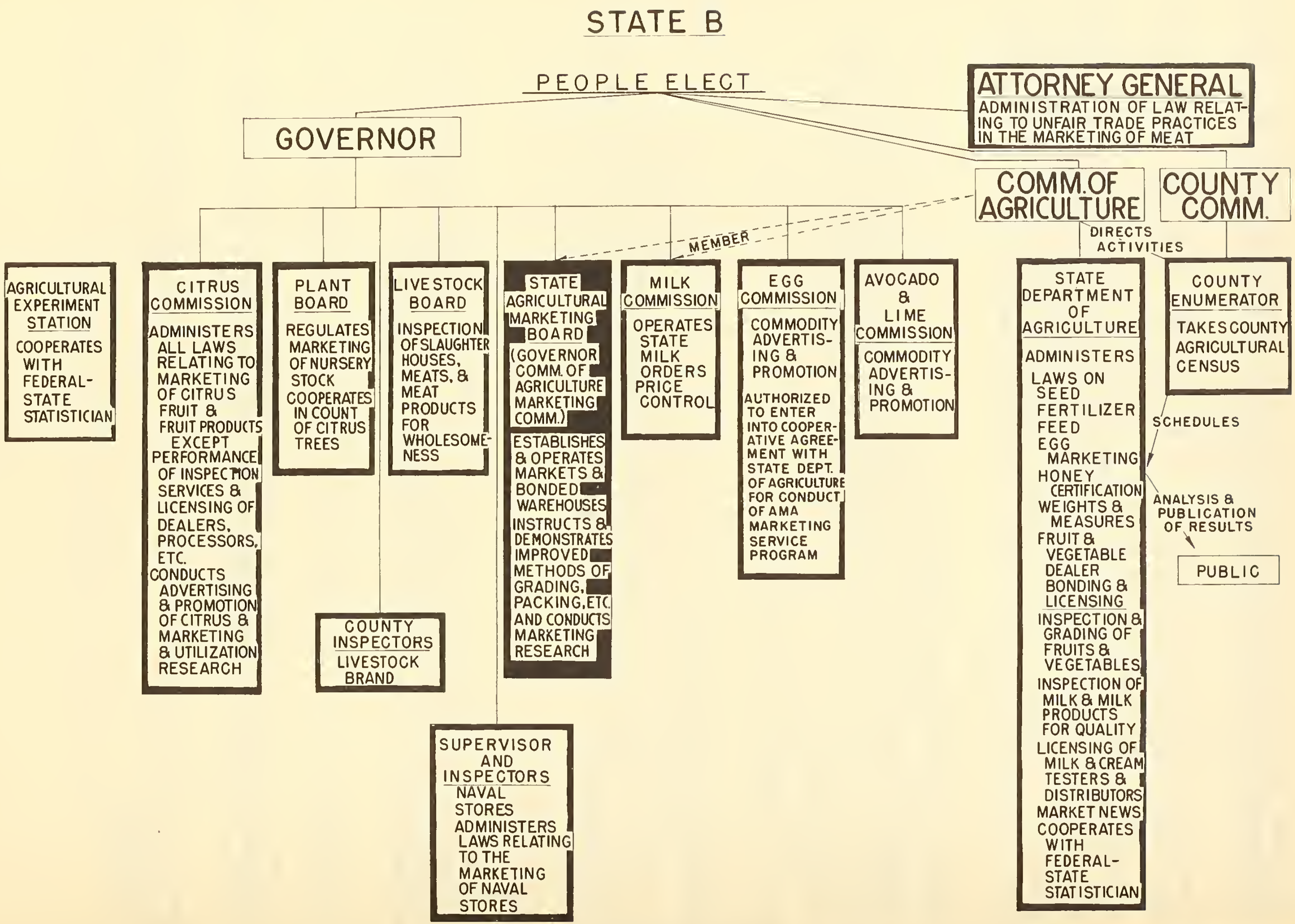

STATE B
PEOPLE ELECT
GOVERNOR
ATTORNEY GENERAL
ADMINISTRATION OF LAW RELATING TO UNFAIR TRADE PRACTICES IN THE MARKETING OF MEAT
COMM. OF AGRICULTURE
COUNTY COMM.
DIRECTS ACTIVITIES
MEMBER
AGRICULTURAL EXPERIMENT STATION
COOPERATES WITH FEDERAL-STATE STATISTICIAN
CITRUS COMMISSION
ADMINISTERS ALL LAWS RELATING TO MARKETING OF CITRUS FRUIT & FRUIT PRODUCTS EXCEPT PERFORMANCE OF INSPECTION SERVICES & LICENSING OF DEALERS, PROCESSORS, ETC.
CONDUCTS ADVERTISING & PROMOTION OF CITRUS & MARKETING & UTILIZATION RESEARCH
PLANT BOARD
REGULATES MARKETING OF NURSERY STOCK
COOPERATES IN COUNT OF CITRUS TREES
LIVESTOCK BOARD
INSPECTION OF SLAUGHTER HOUSES, MEATS, & MEAT PRODUCTS FOR WHOLESOMENESS
COUNTY INSPECTORS
LIVESTOCK BRAND
STATE AGRICULTURAL MARKETING BOARD
(GOVERNOR COMM. OF AGRICULTURE MARKETING COMM.)
ESTABLISHES & OPERATES MARKETS & BONDED WAREHOUSES
INSTRUCTS & DEMONSTRATES IMPROVED METHODS OF GRADING, PACKING, ETC. AND CONDUCTS MARKETING RESEARCH
SUPERVISOR AND INSPECTORS
NAVAL STORES
ADMINISTERS LAWS RELATING TO THE MARKETING OF NAVAL STORES
MILK COMMISSION
OPERATES STATE MILK ORDERS PRICE CONTROL
EGG COMMISSION
COMMODITY ADVERTISING & PROMOTION
AUTHORIZED TO ENTER INTO COOPERATIVE AGREEMENT WITH STATE DEPT. OF AGRICULTURE FOR CONDUCT OF AMA MARKETING SERVICE PROGRAM
AVOCADO & LIME COMMISSION
COMMODITY ADVERTISING & PROMOTION
STATE DEPARTMENT OF AGRICULTURE
ADMINISTERS
LAWS ON
SEED
FERTILIZER
FEED
EGG MARKETING
HONEY CERTIFICATION
WEIGHTS & MEASURES
FRUIT & VEGETABLE DEALER BONDING & LICENSING
INSPECTION & GRADING OF FRUITS & VEGETABLES
INSPECTION OF MILK & MILK PRODUCTS FOR QUALITY
LICENSING OF MILK & CREAM TESTERS & DISTRIBUTORS
MARKET NEWS
COOPERATES WITH FEDERAL-STATE STATISTICIAN
COUNTY ENUMERATOR
TAKES COUNTY AGRICULTURAL CENSUS
SCHEDULES
ANALYSIS & PUBLICATION OF RESULTS
PUBLIC

Figure 3

The Citrus Commission, which administers the marketing laws and regulations for citrus except inspection service and conducts the advertising, promotion, and utilization work.

The Plant Board, which regulates marketing of nursery stock and cooperates in the count of citrus trees.

The Livestock Board, which is responsible for the inspection of slaughter houses, meats, and meat products for wholesomeness.

The State Agricultural Marketing Board, which establishes and operates markets and bonded warehouses, instructs and demonstrates improved methods of grading and packing, and conducts marketing research. (It should be pointed out that Board membership includes the Governor, the Commissioner of Agriculture, and the State Marketing Commissioners.)

The Milk Commission, which is charged with the responsibility of administering the State milk control order. Here again the Commissioner of Agriculture is a member.

The Egg Commission, which was organized for advertising and promotion purposes has been authorized to participate in matched fund work. (The Assistant Commissioner of the State Marketing Bureau is one of the eight commissioners.)

The Avocado and Lime Commission, organized for advertising and promotion of the commodity.

In this chart we have indicated that the Attorney General's Office is responsible for some marketing functions because of the administration of the law relative to unfair trade practices in the marketing of meat.

State B, Chart II, Department Organization

In Chart II (fig. 4) which indicates the organization of the Department of Agriculture, you will note that under the direct administration of the department there are 12 divisions or bureaus. In addition, as indicated on the previous chart, it is shown that the Commissioner of Agriculture is responsible for the administration of the State Farmers Market and Livestock Marketing System and the State Livestock and Crop Pavilions.

In the Inspection Bureau under the department administration, the possible marketing function of feed inspection, food store inspection and the inspection of food plants is carried out along with other responsibilities.

The Chemical Division provides laboratory services for fertilizer, feed, seed, pesticides, and food and drug.

The Citrus and Vegetable Inspection Division in cooperation with USDA administers the Federal-State Inspection Service for citrus and vegetables among other duties.

STATE B

DEPARTMENT OF AGRICULTURE

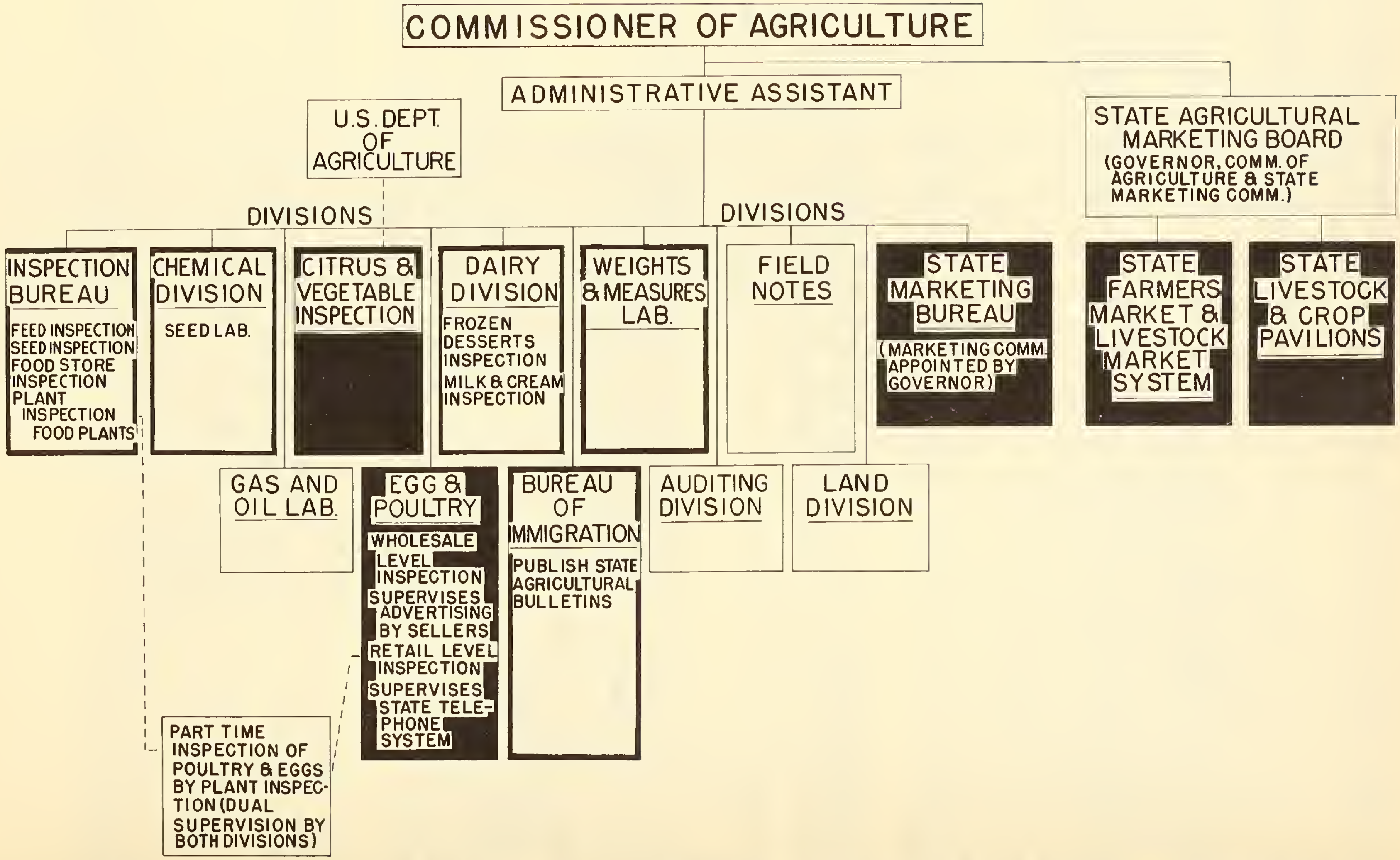

COMMISSIONER OF AGRICULTURE
ADMINISTRATIVE ASSISTANT
U.S. DEPT. OF AGRICULTURE
STATE AGRICULTURAL MARKETING BOARD (GOVERNOR, COMM. OF AGRICULTURE & STATE MARKETING COMM.)
DIVISIONS
DIVISIONS
INSPECTION BUREAU
FEED INSPECTION
SEED INSPECTION
FOOD STORE INSPECTION
PLANT INSPECTION FOOD PLANTS
CHEMICAL DIVISION
SEED LAB.
CITRUS & VEGETABLE INSPECTION
DAIRY DIVISION
FROZEN DESSERTS INSPECTION
MILK & CREAM INSPECTION
WEIGHTS & MEASURES LAB.
FIELD NOTES
STATE MARKETING BUREAU
(MARKETING COMM. APPOINTED BY GOVERNOR)
STATE FARMERS MARKET & LIVESTOCK MARKET SYSTEM
STATE LIVESTOCK & CROP PAVILIONS
GAS AND OIL LAB.
EGG & POULTRY
WHOLESALE LEVEL INSPECTION
SUPERVISES ADVERTISING BY SELLERS
RETAIL LEVEL INSPECTION
SUPERVISES STATE TELEPHONE SYSTEM
BUREAU OF IMMIGRATION
PUBLISH STATE AGRICULTURAL BULLETINS
AUDITING DIVISION
LAND DIVISION
PART TIME INSPECTION OF POULTRY & EGGS BY PLANT INSPECTION (DUAL SUPERVISION BY BOTH DIVISIONS)

Figure 4

The Dairy Division administers the inspection of marks and brands, frozen desserts, and milk and cream.

The Weights and Measures Laboratory is self-expanatory.

The Field Notes Division is custodian and supervisor of original United States Government Field Notes and Land Surveys.

The State Marketing Bureau will be studied in more detail in Chart III (fig.5).

The Gas and Oil Laboratory is responsible for quality determination.

The Egg and Poultry Division is responsible for inspection of egg and poultry products at the wholesale and retail level through joint administration of part-time inspectors with the Inspection Bureau and also supervises advertising by sellers.

The Bureau of Immigration is basically a publicity and public relations division which publishes the State agricultural bulletins.

The Auditing Division administers fiscal matters.

The Land Division administers grants, leases, titles, etc. on State lands.

State B, Chart III, Marketing Organization

In Chart III (fig. 5) we look in more detail at the State Marketing Bureau of this State Department of Agriculture.

The administration of this bureau is the responsibility of the State Marketing Commissioner who is appointed by the Governor but who is responsible to the Commissioner of Agriculture.

Two Major Areas

The two principal areas of responsibility of the Marketing Bureau are in market news services and in general marketing services.

The Assistant Commissioner is directly responsible for the market news work on poultry and eggs which, like other market news services in this State, are conducted in cooperation with USDA. The Assistant Commissioner is a member of the Egg Commission, is Supervisor of Dairy and Poultry Products Inspection, and is responsible for Promotion and Public Relations activities.

Working directly under the Assistant Director are marketing specialists in the fields of poultry and dairy products who (1) work with producers in developing market outlets; (2) gather information and record prices; (3) write articles and editorials; (4) promote the sale of dairy products.

Federal-State Market News Services are administered from the headquarters office as well as many branch offices for fruits and vegetables and livestock.

STATE B

STATE DEPARTMENT OF AGRICULTURE

COMMISSIONER OF AGRICULTURE

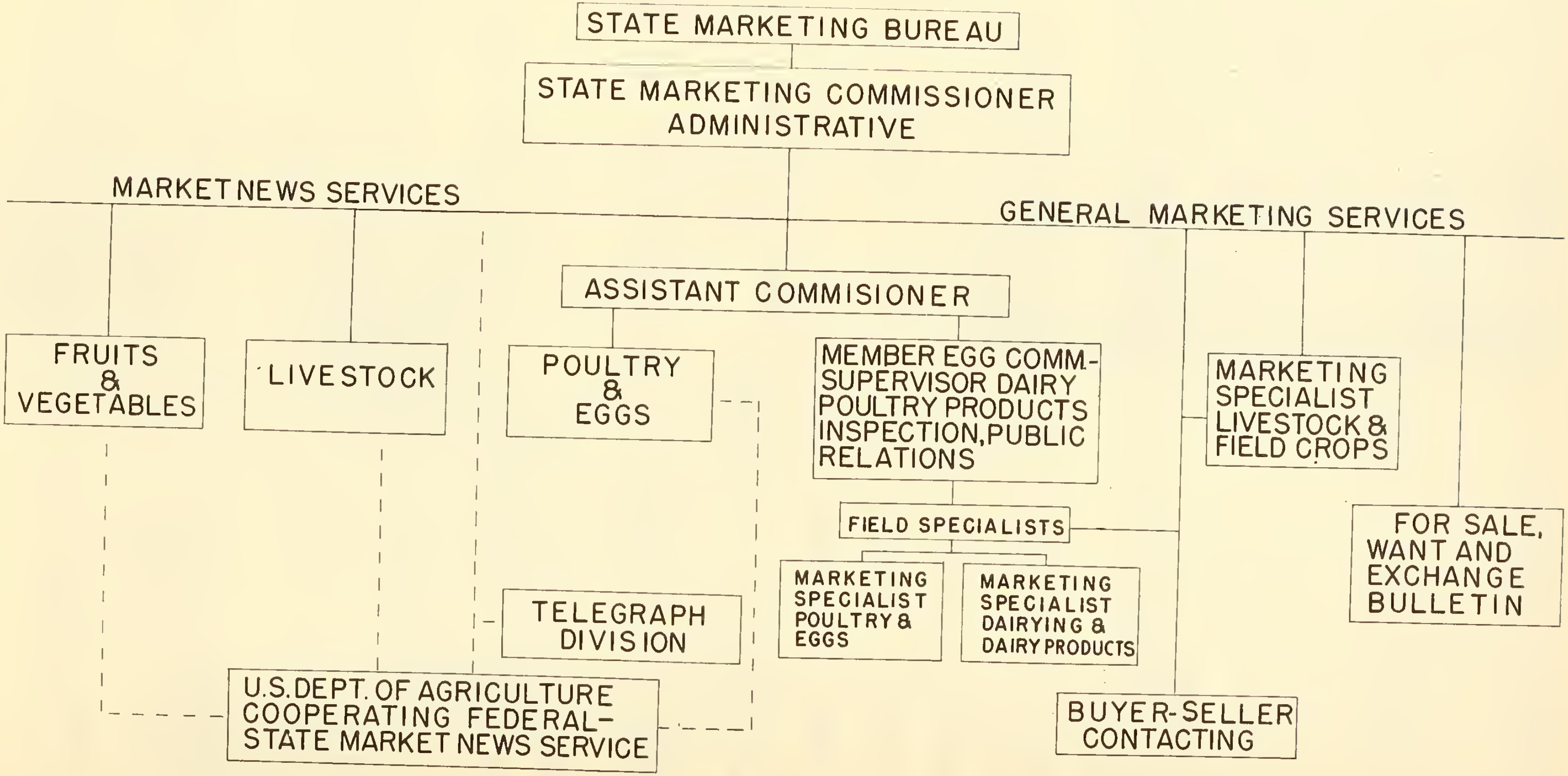

STATE MARKETING BUREAU
STATE MARKETING COMMISSIONER ADMINISTRATIVE
MARKETNEWS SERVICES
GENERAL MARKETING SERVICES
ASSISTANT COMMISIONER
FRUITS & VEGETABLES
LIVESTOCK
POULTRY & EGGS
MEMBER EGG COMM-SUPERVISOR DAIRY POULTRY PRODUCTS INSPECTION, PUBLIC RELATIONS
MARKETING SPECIALIST LIVESTOCK & FIELD CROPS
FIELD SPECIALISTS
FOR SALE, WANT AND EXCHANGE BULLETIN
TELEGRAPH DIVISION
MARKETING SPECIALIST POULTRY & EGGS
MARKETING SPECIALIST DAIRYING & DAIRY PRODUCTS
U.S. DEPT. OF AGRICULTURE COOPERATING FEDERAL-STATE MARKET NEWS SERVICE
BUYER-SELLER CONTACTING

Figure 5

General marketing assistance is given by specialists in livestock and field crops. In addition the bureau assists in developing buyer-seller contacts and in the exchange of marketing information.

It should be noted that in this organization the liaison with USDA through the Market News Cooperative Agreement is indicated by the broken line.

State C, Chart I, Department Organization

This department is administered by a Commissioner of Agriculture elected by the people (fig. 6). The Board of Agriculture is composed of ten members appointed by the Governor with the Commissioner, ex-officio chairman. The Board adopts regulations under powers conferred upon it by the State Legislature and such regulations have the weight of laws.

The Commissioner and his Assistant administer the program of 16 divisions. The Divisions of Soil Testing, Entomology, Credit Union, Research, Accounting, State Fair, Museum, and Weights and Measures apparently do not administer any functions which may be construed as coming under marketing.

Four divisions appear to be conducting one or more marketing functions each, although the major responsibility is not marketing. First of these is the Inspection and Analytical Division, which administers marketing enforcement activities in the areas of regulations on misbranding, labeling, and purity of food products. Supervision of public livestock markets and meat and poultry product inspection are marketing functions which are administered by the Veterinary Division. Enforcement of product standards is considered a marketing function by some States and is, therefore, indicated as a marketing activity under the Dairy Division. The Publications Division is indicated as containing the marketing function of publicity.

Four divisions are represented as having the majority of their responsibilities classified as marketing. The Seed Testing Division is responsible for the enforcement of the State Seed Law and for analysis of seed samples. The Markets Division will be discussed in detail on Chart II (fig. 7). The Statistics Division is the cooperative Federal-State Crop Reporting Service which, as we have already found in the case of State A, is considered a definite marketing area. The Warehouse Division administers the marketing functions of licensing and supervision of warehouses, building loans to warehouses, and licensing cotton classers and weighers.

As diagramed all 16 divisions are responsible directly to the Commissioner or his Assistant.

State C, Chart II, Marketing Organization

The chart of organization of the Division of Markets of State C (fig. 7) differs considerably from most of the straight line techniques used by other States. There are two reasons for this. First, this State in one chart tells an

STATE C

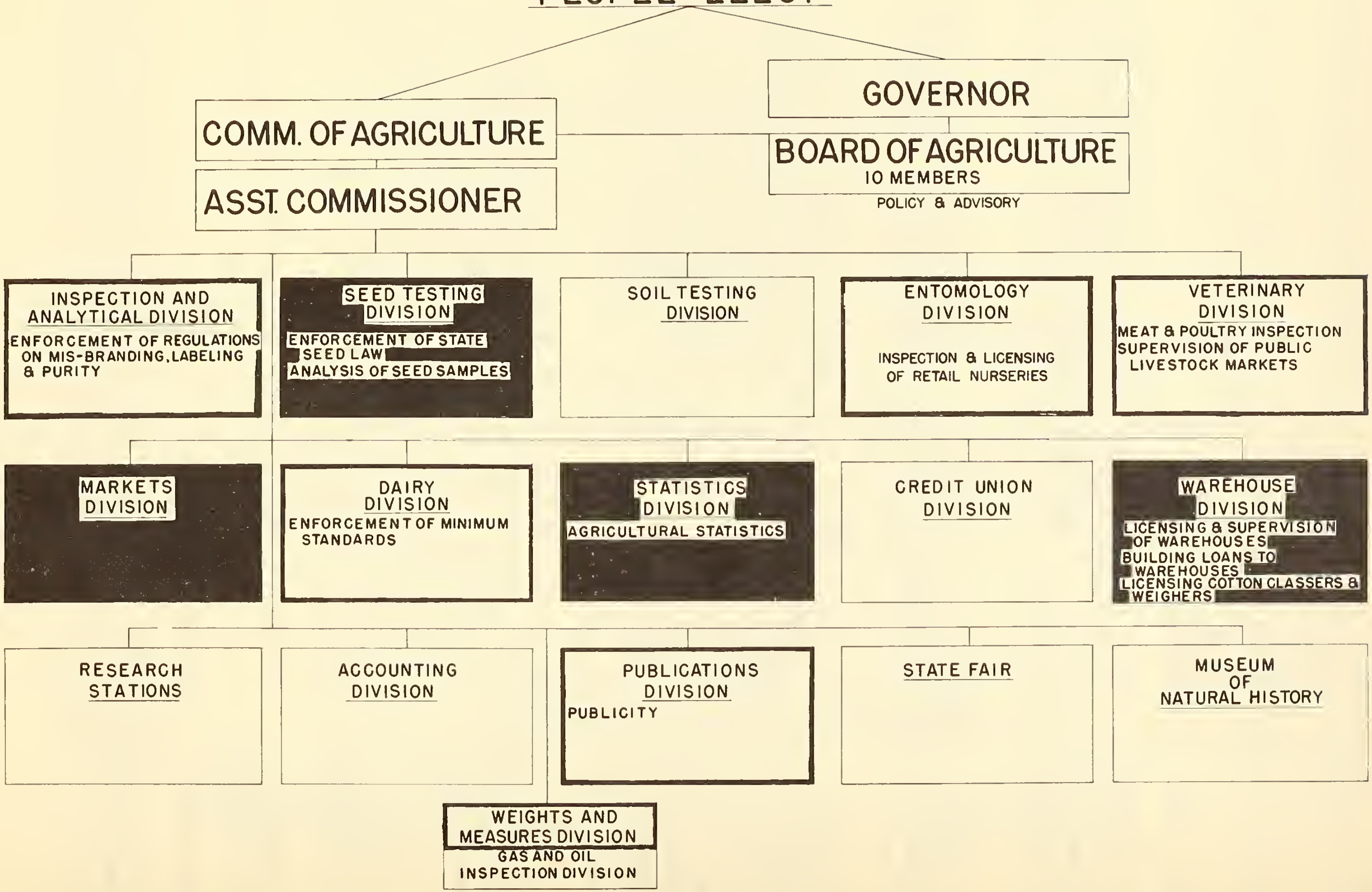

PEOPLE ELECT
GOVERNOR
COMM. OF AGRICULTURE
BOARD OF AGRICULTURE
10 MEMBERS
POLICY & ADVISORY
ASST. COMMISSIONER
INSPECTION AND ANALYTICAL DIVISION
ENFORCEMENT OF REGULATIONS ON MIS-BRANDING, LABELING & PURITY
SEED TESTING DIVISION
ENFORCEMENT OF STATE SEED LAW
ANALYSIS OF SEED SAMPLES
SOIL TESTING DIVISION
ENTOMOLOGY DIVISION
INSPECTION & LICENSING OF RETAIL NURSERIES
VETERINARY DIVISION
MEAT & POULTRY INSPECTION
SUPERVISION OF PUBLIC LIVESTOCK MARKETS
MARKETS DIVISION
DAIRY DIVISION
ENFORCEMENT OF MINIMUM STANDARDS
STATISTICS DIVISION
AGRICULTURAL STATISTICS
CREDIT UNION DIVISION
WAREHOUSE DIVISION
LICENSING & SUPERVISION OF WAREHOUSES
BUILDING LOANS TO WAREHOUSES
LICENSING COTTON CLASSERS & WEIGHERS
RESEARCH STATIONS
ACCOUNTING DIVISION
PUBLICATIONS DIVISION
PUBLICITY
STATE FAIR
MUSEUM OF NATURAL HISTORY
WEIGHTS AND MEASURES DIVISION
GAS AND OIL INSPECTION DIVISION

Figure 6

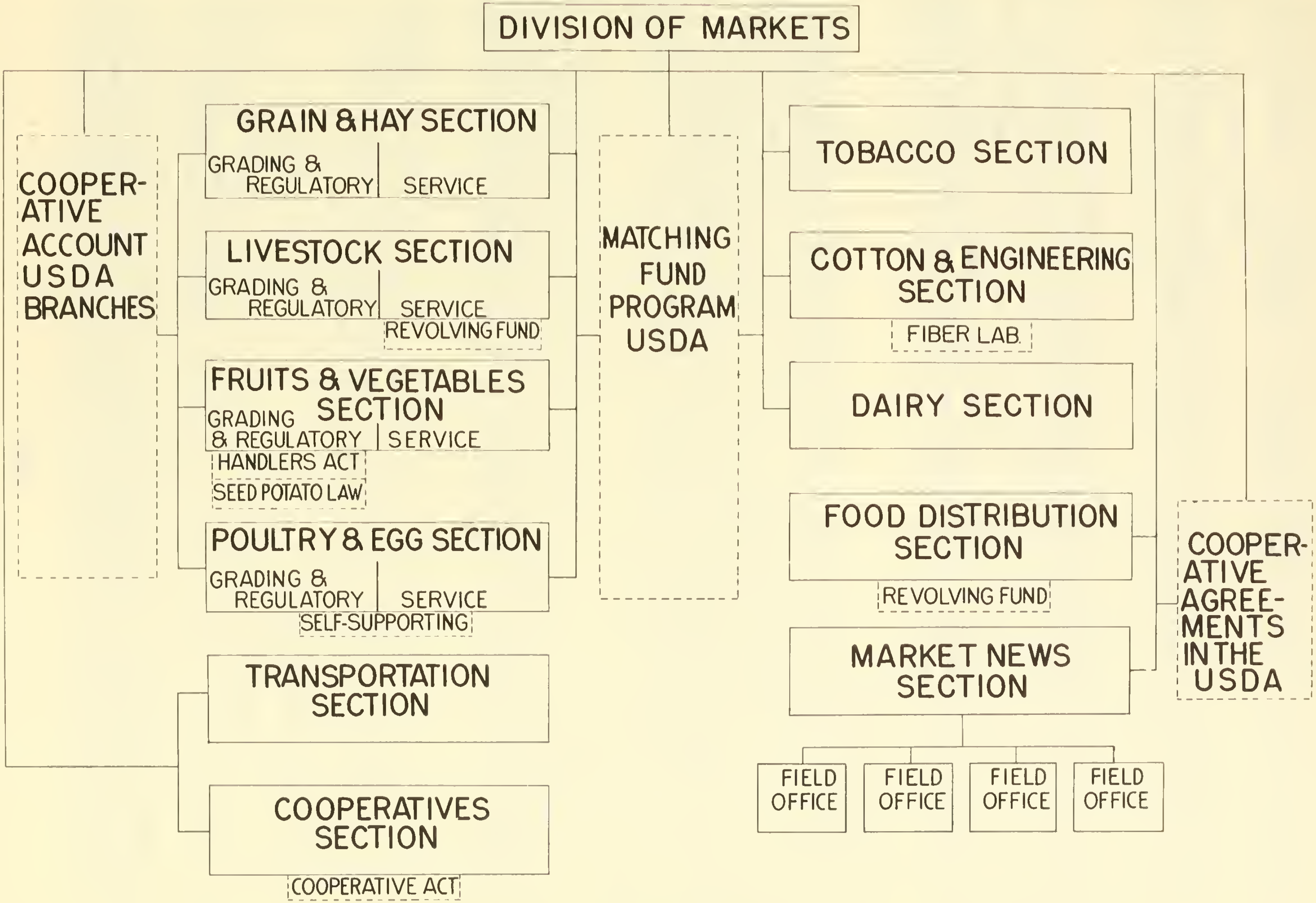

STATE C

Figure 7

extremely complete story of the activities of the divisions; and secondly, this is one of the few States which attempts to diagram the relationship which its individual sections have with USDA branches or programs.

You will note that the division is divided into four areas: (1) grading and regulatory; (2) market service work; (3) food distribution and market news; (4) transportation and cooperatives.

Before we study each section, may we point out the relationship which this division maintains with USDA in three separate areas. The first is the cooperative Federal-State grading programs which four of the commodity sections administer in cooperation with the respective commodity branches in USDA. The second is the matched fund program in which seven sections are participating. And the third area is that of specific cooperative agreement in which two sections are participating. There appear to be only two areas of activities in this Division of Markets which have no cooperative relationship with USDA.

Grain and Hay Section

Under grading and regulatory, this section is responsible for officially certifying all grain and hay graded in this State under cooperative agreement with USDA. Under market service work, in cooperation with the matched fund program, this section has the primary function of increasing the efficiency of handling, storing, drying, and marketing grain crops. To accomplish this, technical assistance in planning new and remodeling old grain marketing facilities is being conducted. This section is also responsible for improved marketing of grain on a grade and quantity basis.

Livestock Section

Under the grading and regulatory responsibilities, this section operates meat grading programs in local packing plants and grades all meat going to State institutions. Live hog and cattle grading is done at organized sales using State grades.

In the market service work, revolving funds are used to purchase cattle and sheep for stock and feeder purposes, generally through orders from county agents. Assistance is given in planning organized sales and in preparing information of cattle on feed for in-State packing plants.

Fruits and Vegetables Section

In grading and regulatory work the inspection of fruits, vegetables, peanuts, and Christmas trees is conducted by a cooperative agreement with USDA. The State's Handlers Act and Seed Potato Law are administered in this section.

Under market service work, general assistance is given major commodities in all areas of marketing. This involves assistance in the physical facilities of markets, their location, organization, and operation. It also involves improved grading and packing techniques, proper preparation of commodities for market, and dissemination of information regarding these commodities.

Poultry and Eggs Section

Certification of the grades of all poultry and eggs moving in commercial channels is conducted under the grading and regulatory work in cooperation with USDA. The Egg Market Act is administered by this section.

Technical assistance under the market service work is given to poultry and turkey processors in planning new and remodeling existing processing plants.

Transportation Section

The primary duties of this section are to cooperate and assist all agencies in and out of the State in improving the transportation system and maintaining reasonable charges for the transportation of commodities produced in our agricultural system.

It should be pointed out that this section works closely with the commodity sections and is one of the two that does not have direct liaison with USDA.

Cooperative Section

It is the responsibility of this section to make or assist in the making of market studies to determine the probable success a group of farmers might have in establishing a new cooperative. This section is also charged with the responsibility of receiving and filing financial reports of all cooperatives. Charters, bylaws, marketing agreements, stock certificates, and other business papers are prepared for cooperatives, mutuals, and other farm type corporations that are operated for the benefit of producers.

It should now be pointed out that in the tobacco, cotton, and dairy sections, there is no grading or regulatory responsibility. All work done by these sections is done under the market service matched fund program.

Tobacco Section

The main function of this section is to improve the marketing of flue-cured and burley tobacco and enable the grower to get the best possible price for his crop. Group demonstrations with growers as well as meetings with warehousemen and dealers are conducted to accomplish this result. A monthly tobacco warehouse sales report is also issued by this section.

Cotton and Engineering Section

The objective of this section is to sustain and expand the market for cotton by: (1) improving the grade value of lint and seed through technical or engineering assistance to cotton gins; (2) maintaining and operating a fibre testing laboratory to determine fibre properties and to release test data;

(3) promoting the development and practice of more equitable business customs and usages among the several raw cotton interests.

In addition to the work by section engineers on cotton gins and corn mills, the engineers are also available for technical and engineering assistance to other sections of the division and to other areas of the department. The staff engineers specialize in, but are not confined to, movement and storage of material, plant design, and the application of pre-marketing processing and packaging of farm commodities.

Dairy Section

This section's primary purpose is to increase markets for dairy products through direct work with consumers, and assistance to the dairy industry in its promotional activities. Special attention is given schools as well as to key people in the dairy industry and in the educational field.

Food Distribution Section

Under a cooperative agreement with USDA, this section administers the commodity distribution program for the State. It is responsible for planning, developing, and supervising the program for acquisition, warehousing, transporting, distributing, and utilization of foods. The food is purchased by USDA under the National School Lunch Act and the Price Support and Surplus Removal Program and is donated to the State for use in eligible schools, institutions, and families.

Market News Section

Under this Federal-State Market News Service, daily marketing information is released on the major commodities of interest to the State. In addition to the headquarters office, there are three full-time field offices and one part-time field office.

It was pointed out by this State's representative that while they have indicated the direct liaison contact with USDA, they also have excellent contact with their State College and with their State Department of Conservation and Development in allied work.

State D, Chart I, Department Organization

In this State a seven-man Board of Agriculture appointed by the Governor meets monthly to advise the Director and staff on policy. Board appointments are staggered and are for a six-year term.

The Director is appointed by the State Board of Agriculture for an indefinite term. The Director appoints the Chiefs of each of the eight divisions. All other employees are under civil service.

The eight divisions are Administration, Markets, Dairy and Food, Animal Health, Plant Industry, Economic Practices, Agricultural Statistics, and Fairs (fig.8).

Of these divisions, only the Division of Animal Health and the Division of Fairs are indicated as having no marketing functions. The publicity service may be considered a marketing function under the Administrative Division.

The Division of Markets will be discussed in detail in Chart II (fig. 9).

The marketing functions of quality milk inspection and the grading of cheese and butter are conducted by the Dairy and Food Division. Seed inspection and testing are the possible marketing functions conducted under the Plant Industry Division.

The Economic Practices Division has the responsibility of administering the laws and regulations relating to business practices in agriculture and industry. Among these is the determination of financial responsibility of dairy plants, food processors, and public storage warehousemen, prior to the approval of annual license. Weights and measures work is handled by this division.

The Agricultural Statistics Division administers the Federal-State Crop and Livestock Reporting Service. While it is considered a separate division in the case of State D, it is indicated on the chart as being completely a marketing function.

This department appears to have straight lines of authority from each division to the Director with the department-wide services of the central office indicated as being available to all divisions.

State D, Chart II, Marketing Organization

Except for division-wide administrative matters, this division is organized in the two areas of commodity sections and service sections. One of the different things indicated by this chart is the relationship which the three service sections maintain with each of the four commodity sections as indicated by the broken line (fig. 9).

Administration Section

Similar to the department organization chart, this division has organized its administrative division-wide responsibility of office management, personnel and financial records, and clerical in one section and is charted off to one side to indicate its responsibility to all sections of the division.

The four commodity sections are Dairy, Fruit and Vegetables, Livestock, and Poultry and Eggs.

Dairy Section

The primary responsibility of the dairy section is to provide general marketing assistance to all segments of the dairy industry. This includes sales contact

STATE D

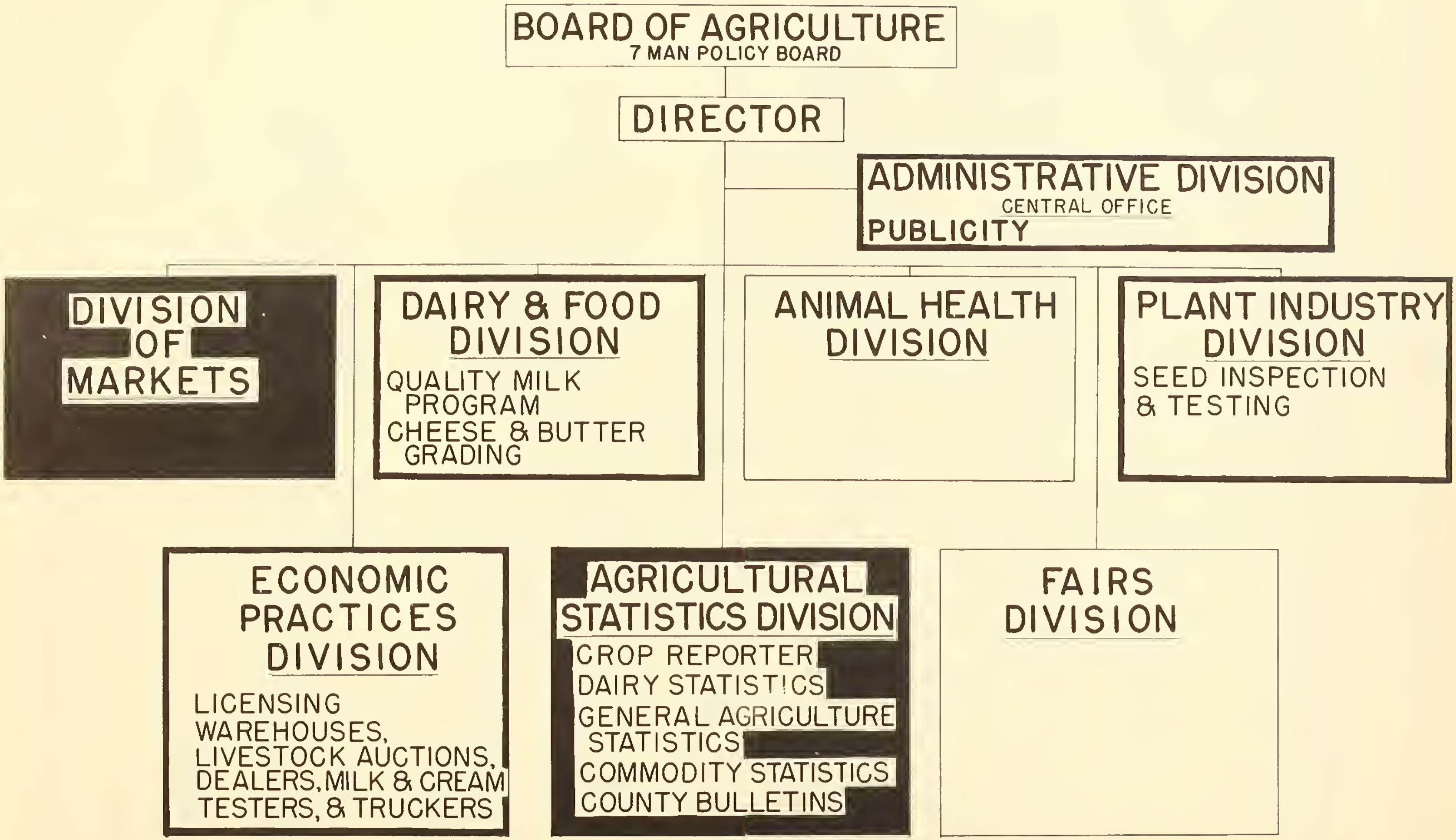


Figure 8

STATE D

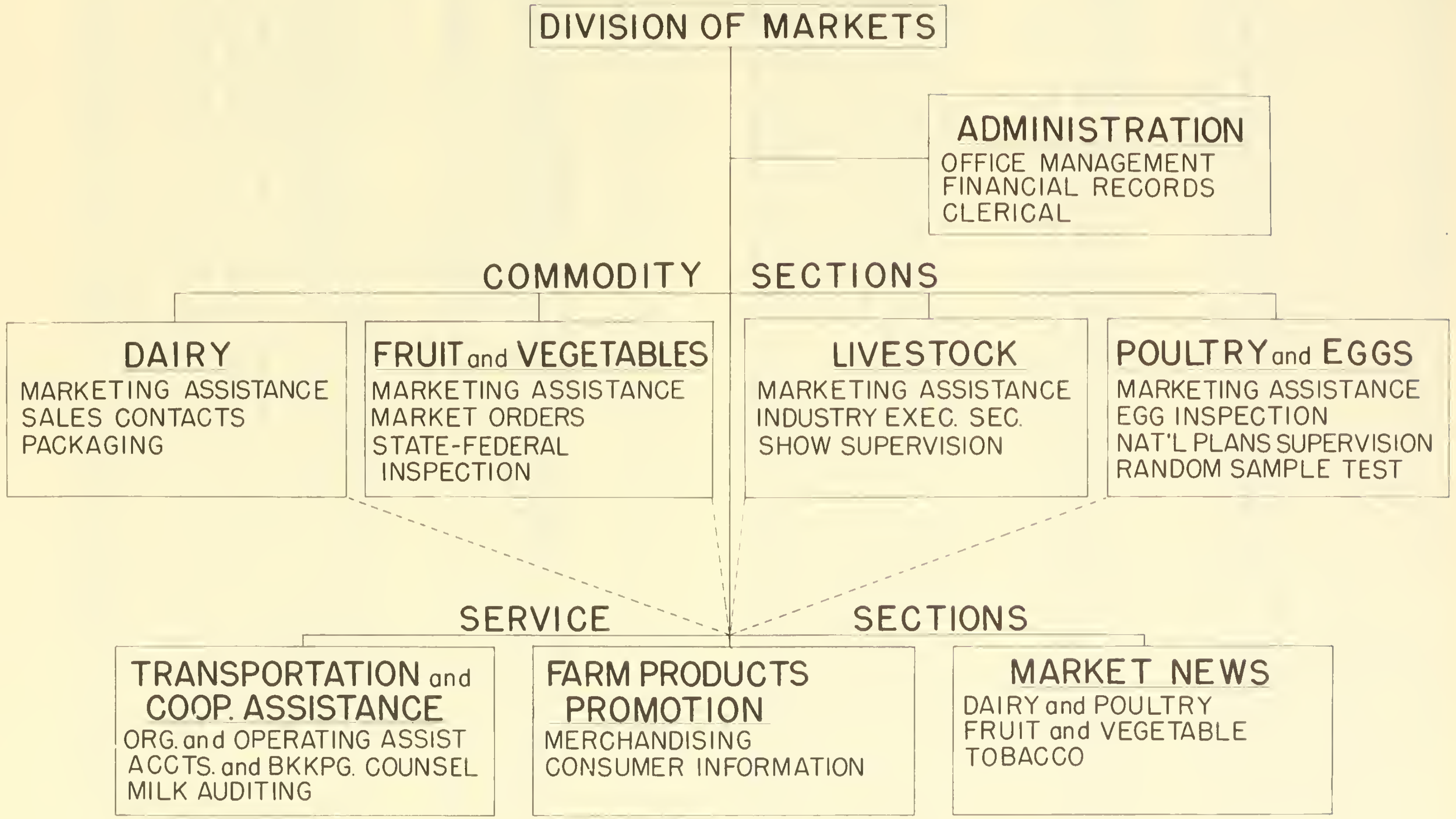


Figure 9

work, product packaging, and grade labeling development among other things. In addition, this section maintains liaison with the Federal Market Orders in operation in this State.

Fruit and Vegetables Section

If diagramed in more detail, this section would indicate the two areas of regulatory and service. The regulatory responsibilities include the enforcement of the State's misbranding statutes as it relates to fresh fruits and vegetables.

As its service responsibility, this section administers the State-Federal Fruit and Vegetable Inspection Service, assists in the development and administration of any authorized market orders for fresh fruits and vegetables, and provides general assistance in grading and packaging.

Livestock Section

This section maintains its direct contact with the State's meat animal industry because of the section head's responsibility as executive secretary for the industry association. This section is also responsible for the administration and supervision of many of the livestock shows and sales including four junior livestock expositions and market type shows for both beef and hogs.

General marketing service is provided in such areas as the establishment of country buying stations and auction yards as well as organizational assistance to breed associations.

Poultry and Egg Section

Under regulatory responsibilities this section administers the State Egg Law.

Under its service program the section administers the National Improvement Plan for both poultry and turkeys as well as one of the 12 Random Sampling Test Programs for poultry now in operation in the United States.

The three special service sections include Transportation and Cooperative Assistance, Farm Products Promotion, and Market News.

Transportation and Cooperative Assistance Section

This section combines service in the areas of transportation and cooperative assistance to the commodity sections and other segments of agriculture. Activities to date in transportation assistance have been restricted to foreign shipments, conferences on improved shipping methods, and the assembling of rates and other important information. Liaison service between producer groups and transportation companies is a primary responsibility of this service.

In assistance to cooperatives, special organizational and operating counsel is provided farm groups whenever requested. A staff of accountants provide a cost accounting service to cooperatives.

Farm Products Promotion Section

This section has the responsibility of coordinating all of the product promotion activities for the department and of administering these promotions in cooperation with the commodity marketing specialist whose products are being promoted. Constant liaison is maintained by this section with all major wholesale and retail food organizations in the State and with the major retail chains nationally because of special product promotions. In addition to the promotion specialists, this section also contains public relations and nutritional personnel.

Market News Section

In cooperation with USDA, the Federal-State Dairy and Poultry Market News Service is conducted by this section. State market news services are administered for certain fruits and vegetables and for tobacco, seasonally.

SUMMARY

In way of review, may we point out the four basic differences existing in the organization charts of these four States.

1. The department chart of State A was unique in that it was able to indicate in considerable detail the activities within its four divisions and yet maintain a simple chain of authority. It was also unique in that most of its marketing functions were well concentrated in the one division.

2. State B is unique in that its many marketing functions are more decentralized than in the other three States which we have studied and therefore are more difficult to chart.

3. State C is unique in that its Division of Markets chart indicates the cooperative programs in which its individual sections participate with USDA. We recognized that the other States which we have studied are also cooperating with USDA but do not attempt to show this relationship on their charts.

4. State D's Division of Markets chart is unique in its definite division between commodity sections and special service sections and yet graphically indicates how any one of the three service sections does work with commodity specialists in providing marketing assistance.

HOW DIVISIONS OF MARKETS CAN BE ORGANIZED TO FUNCTION MORE EFFECTIVELY

Spencer G. Duncan
New York Department of Agriculture and Markets

First of all, may I say that I do not feel that I am at all qualified to discuss the subject assigned to me, but I will try my best to bring out some of the opinions that I have formed while associated with our Division of Markets.

Some of the observations that I will present undoubtedly will be somewhat biased and may not be applicable to all marketing bureaus or divisions.

Having been associated with marketing work in New York State for more than 35 years, I have had the privilege of seeing many changes and developments and feel that there are still some other changes that could be made which would improve the work of the entire marketing division.

In our Department, statistics are handled in a Statistical Bureau separate from the Division of Markets. Also, Weights and Measures occupy a separate bureau in the departmental set-up. The work of both of these bureaus is so much a part of marketing work that I believe they should be a part of the Division of Markets. Hardly a week passes without our being called upon to check weights on shipments of consumer packages. We also receive many phone calls relating to short weights, improperly adjusted scales, etc.

Since the regulatory personnel attached to the division are constantly checking on retail outlets, it would not be difficult for them to check the weighing equipment when visiting these retail outlets.

It has been very enlightening to view the charts presented by Don Wilkinson (figs. 1-9) and I think it proves conclusively one point; that is, when marketing work is scattered throughout many agencies in the State, as in State "B" of the charts, or even scattered among several agencies within a State Department of Agriculture, it is difficult, if not impossible, to obtain coordination of activities and to get the program well planned and executed.

I believe that one of the major objectives should be to bring all marketing work together under the direction of one person. This person should have a good background in marketing and should not be subject to political changes. If conditions peculiar to a certain State make a political appointment necessary then, perhaps, an assistant commissioner might be appointed with the work of the division of markets under his general direction. I believe, also that the head of the markets division should be a permanent employee so that he can develop good contacts with industry groups and have ample time to develop a good program based on complete understanding of marketing problems.

Personnel under the director should be chosen on the basis of merit and should not be subject to change with changes in politics. In a like manner, responsibility for the different phases of the program should be definitely assigned.

There is little use in trying to carry out a well-balanced marketing program with new and inefficient help brought in with each political change. It requires several years of intensive training to develop a good marketing man, and political changes and changes whenever politics change could not only be very uneconomical, but might prove disastrous to the marketing program.

By the same token, an employee might have a program well under way, functioning properly, and headed in the right direction, when, should it be necessary to replace him for political reasons, the whole program could disintegrate and fail. In thinking of a well-organized division of markets, one of the questions always presenting itself is whether the division should be organized on a commodity or a functional basis. It has been my experience that probably it would be impossible to have either one completely; therefore, a mixture would probably work out to the best advantage. There are some things that work out well on a functional basis. A few that I can think of are:

1. Agricultural statistics

2. Work on facilities and handling equipment where special skills are more important than commodity knowledge.

3. Transportation and warehousing activities.

4. Promotional programs to expand outlets.

5. Work on retailing.

And, again speaking of agricultural statistics, we have heard on many occasions the comments to the effect that it is very difficult to find markets for apples, grapes, cherries, potatoes, or any other commodity if you do not know the exact volume available for marketing. I think we need to know where the orchards, etc., are located and have some idea of their production. Certainly, work on facilities and handling equipment belongs in the functional category since all sorts of commodities, packages, and marketing techniques enter this picture.

Likewise, all of the other items mentioned do not lend themselves to commodity approach.

Some of the other activities of the division of markets can be organized on a commodity approach such as work to improve quality, inspection and grading, and other activities where knowledge of the commodity is paramount. We have learned that we can do a great deal with an individual commodity if we know the marketing problems and are able to employ personnel in the division who can act as key men in developing the marketing work around that particular product. Probably this should be a group of commodities such as fruits and vegetables and the key man would be the focal point in work with farm and marketing groups. I believe many divisions fail in their attempt to do a good marketing job because the organization has not been properly set up, nor properly staffed. When the proper organization has been set up and is properly staffed, then the responsibility and authority should be clearly assigned. Otherwise, you will find personnel going in all directions and duplicating one another's efforts.

If an efficient operation is expected, then there should be at least an annual work plan for each unit. There should be periodic reports on what has been done, what good it did, and whether or not it should be carried on to further development. It seems to me that we should always be looking ahead.

I feel that one of the greatest helps that a marketing division man can have is an advisory committee chosen from the various commodity and marketing groups. There should be some provision made for at least paying the expenses of these committees when they are engaged in an official capacity. Many good, sound-thinking individuals might find it impossible to accept an appointment on an advisory committee if it were necessary for them to pay their own expenses to and from meetings.

One thing that we have found very helpful in the conduct of our work has been periodic meetings of research, service, and extension people to work over and agree on problems most in need of attention and to determine what part each agency should be responsible for. This, again, is similar to making sure that the work within the division is well organized so that duplication of efforts is held to a minimum.

We have found that there is nothing so important to success as positive steps taken to train employees on their job. While we have held many training classes, we still feel that there is room for improvement and I certainly want to stress the importance of keeping division personnel well-informed and working like clockwork.

As I was preparing this talk, we were holding a 2-day school for our regulatory inspectors. We confined our discussion to apples and will later hold a 2-day school for eggs and a 2-day school for potatoes.

On November 11, we held a 1-day meeting of our Market News reporters. Plans are under way for periodic meetings of farm products inspectors and men in our other sections dealing with promotion and other matters.

There should be a definite increase in the number of employees attending short courses and marketing work shops. There is no other way that one can obtain the information and knowledge gleaned from joint meetings where all States are represented and where problems and new information are exchanged. I believe also that there would be a great deal of value in State marketing work shops similar to the Federal work shop, but confined to the marketing personnel within the State. Such institutions need not be confined to division employees but could make good use of outside talent. I do not feel that too much emphasis can be placed on these all-important training programs.

Finally, when the divisions of markets are functioning properly, steps should be taken to make sure that the proper people and groups in the State know what is being done, why, and what good it has done. Such publicity will facilitate improvements in marketing and improve public relations. There can be no substitute for a good marketing program in any State in our Union.

CONCLUSIONS AND RECOMMENDATIONS

On how to organize marketing work in State Departments of Agriculture

During the second session, attention was directed to the actual organization of the markets division. The organization charts of four unidentified States were studied in detail in an effort to represent four different systems of organization (figs. 1-9).

Two of the States graphically portrayed the opposite viewpoints in the matter of centralized versus decentralized marketing functions. Another illustrated the relationship of regulatory and service work in one section and also the method of diagramming liaison with several USDA programs. The fourth State showed the compromise use of commodity versus functional sections and the liaison between these areas.

It was pointed out to the group that the consolidation of marketing functions within the United States Department of Agriculture in 1946 was the result of joint effort by a committee of State commissioners, secretaries, and directors working in cooperation with Congress and USDA officials. "Similar consolidation has yet to be accomplished in many of our individual States," stated one representative.

Emphasis was placed on the importance of having a well-trained, experienced head of a marketing division, one who has an understanding of the total field of agricultural marketing and who is free of political changes so that the continuity of a well-balanced program may be assured.

By parliamentary procedure, the group developed a list of eleven areas of marketing from the previous day's total list that a department of agriculture should consider having under one well-balanced division of markets. These functions are:

1. Market News
2. Inspection and grading:
   of commodities
   of field crops
3. Marketing development and expansion
4. Commodity sales promotion
5. Statistical information
6. Marketing orders and commodity commissions
7. Transportation service
8. Marketing facilities and engineering
9. Service to cooperatives
10. Commodity regulatory services
11. Standardization--establishment of grades

To consolidate these functions into a marketing division organization chart, the group by vote requested the presiding chairman to appoint a committee of commissioners and marketing chiefs for the purpose of developing possibly three alternative plans: (1) Commodity basis, (2) Functional basis, (3) Compromise system. The following charts were developed by this committee subsequent to the worksho Chart 1 (fig. 10) shows a division organized on a commodity basis, chart 2 (fig. 11) a division set up on a functional basis, and chart 3 (fig. 12) partly commodity and partly functional. Since these charts were developed by the committee after the workshop closed, they represent the views of the committee o

PROBLEMS ENCOUNTERED BY THE STATES IN OPERATING A MATCHING FUND PROGRAM

Ben J. Butler
Kentucky Department of Agriculture

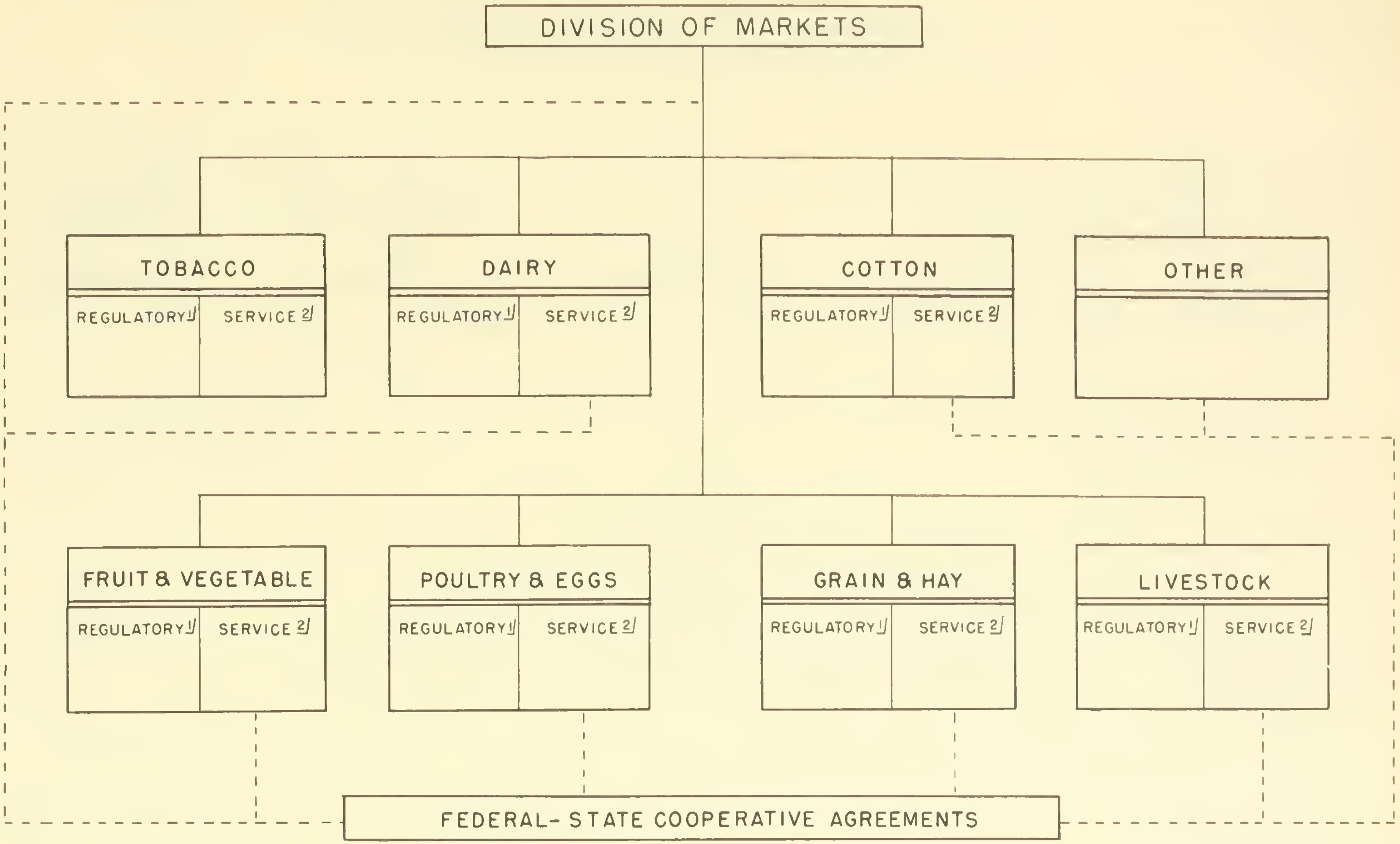
The subject assigned for this period is one that encompasses a wide and importan field. It is made difficult by the very fact that "what is one man's drink is another man's poison"-- reduced to terms applicable to our immediate situation we may state this old adage another way, "what is one department's delight is another department's problem."

Many problems remain a perpetual source of irritation and never seem to get a solution because those concerned with them never look the issue straight in the eye and are often reluctant to go into serious consultation with those that are concerned with the same problem. I think herein lies the great merit of any suc meeting as this where the agenda has been planned to encourage frank and open discussions of those things which need improvement or implementation to enhance a program or project. All too often we find meetings of seemingly great importance whose main topic of discussion is the greatness of their organization and the people who direct it. The "mutual admiration society" may be fine but I dare say it has never solved one problem to this date.

Shortly after taking my present office some three years ago, I called a staff meeting of all the key personnel of the Department. This session was designed to outline the policies under which we would proceed. There were the usual remarks about character, attention to duty, procedures, and the like. Then final came the one which I could see produced some shock and concern. They were told that their boss had not come to his position to seek praise or glory but rather to do a job. Those who would get promotions would not be the ones who eternally stood at the door to bow down and tell him what great work he was doing but rathe the ones who had the vision and courage to tell him when he was making a mistake and how this might be corrected. Once you have opened this door and all concerned know it is secured in an open position, you will be amazed at the number of adjustments that will be made in your otherwise sterotyped procedures.

It is to be remembered that both the final list of marketing activities and the resulting organization charts are for guidance purposes only and do not necessarily represent the unanimous thinking of all assembled in the work group or any agencies or associations which they may represent. Every State has its own unique problems and these findings must, therefore, be applied with discretion by the administrators responsible in that State.

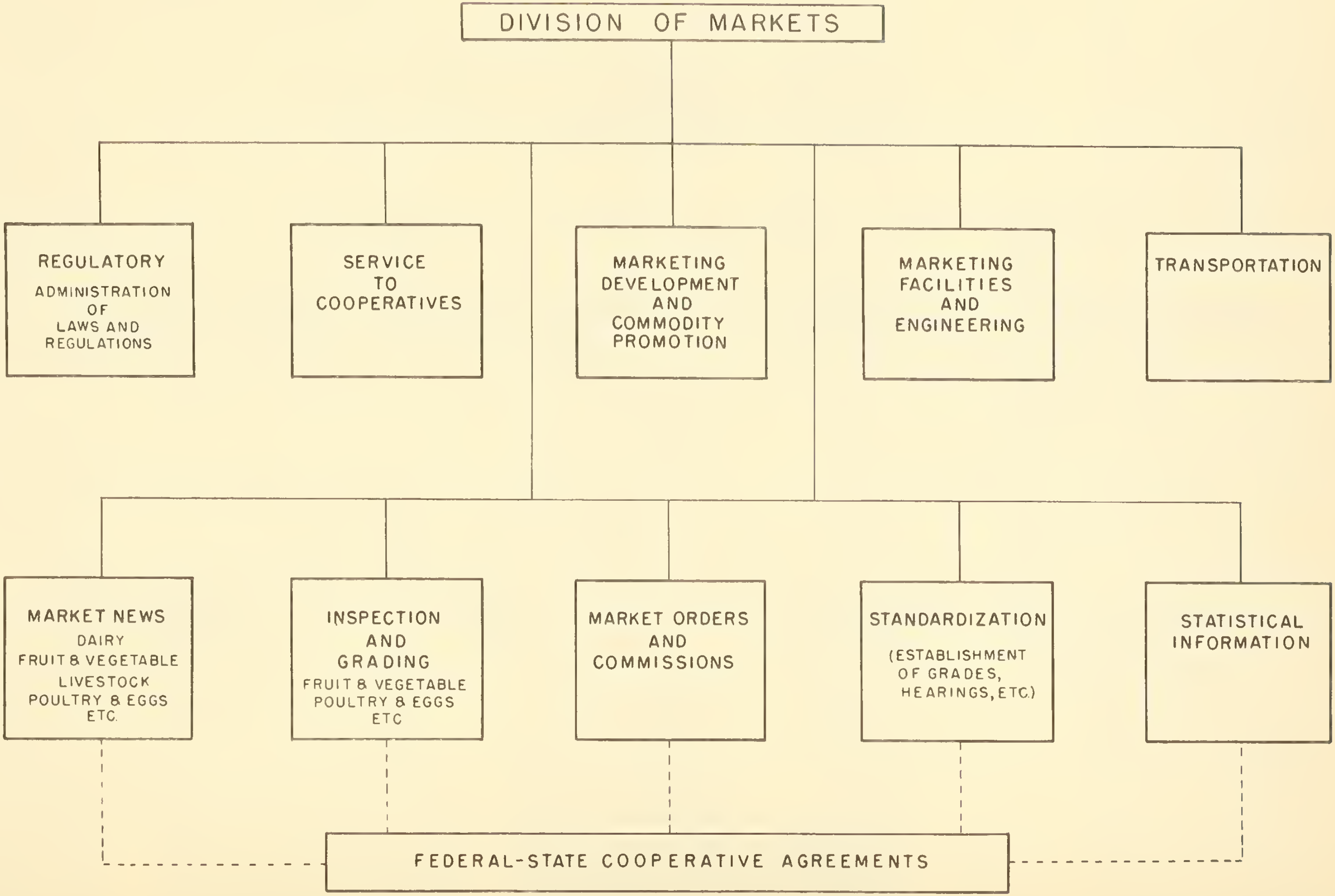
ORGANIZATION



1/ REGULATORY Administration of Laws, Regulations, Market Orders, etc.
2/ SERVICE: Market News, Transportation, Promotion, Voluntary Inspection and Grading, Quality Improvement, Facilities and Equipment, Handling Methods, Packaging, etc

Figure 10

ORGANIZATION ON FUNCTIONAL BASIS


DIVISION OF MARKETS
REGULATORY
ADMINISTRATION OF LAWS AND REGULATIONS
SERVICE TO COOPERATIVES
MARKETING DEVELOPMENT AND COMMODITY PROMOTION
MARKETING FACILITIES AND ENGINEERING
TRANSPORTATION
MARKET NEWS
DAIRY
FRUIT & VEGETABLE
LIVESTOCK
POULTRY & EGGS
ETC.
INSPECTION AND GRADING
FRUIT & VEGETABLE
POULTRY & EGGS
ETC
MARKET ORDERS AND COMMISSIONS
STANDARDIZATION
(ESTABLISHMENT OF GRADES, HEARINGS, ETC.)
STATISTICAL INFORMATION
FEDERAL-STATE COOPERATIVE AGREEMENTS

COMBINATION COMMODITY AND FUNCTIONAL BASIS

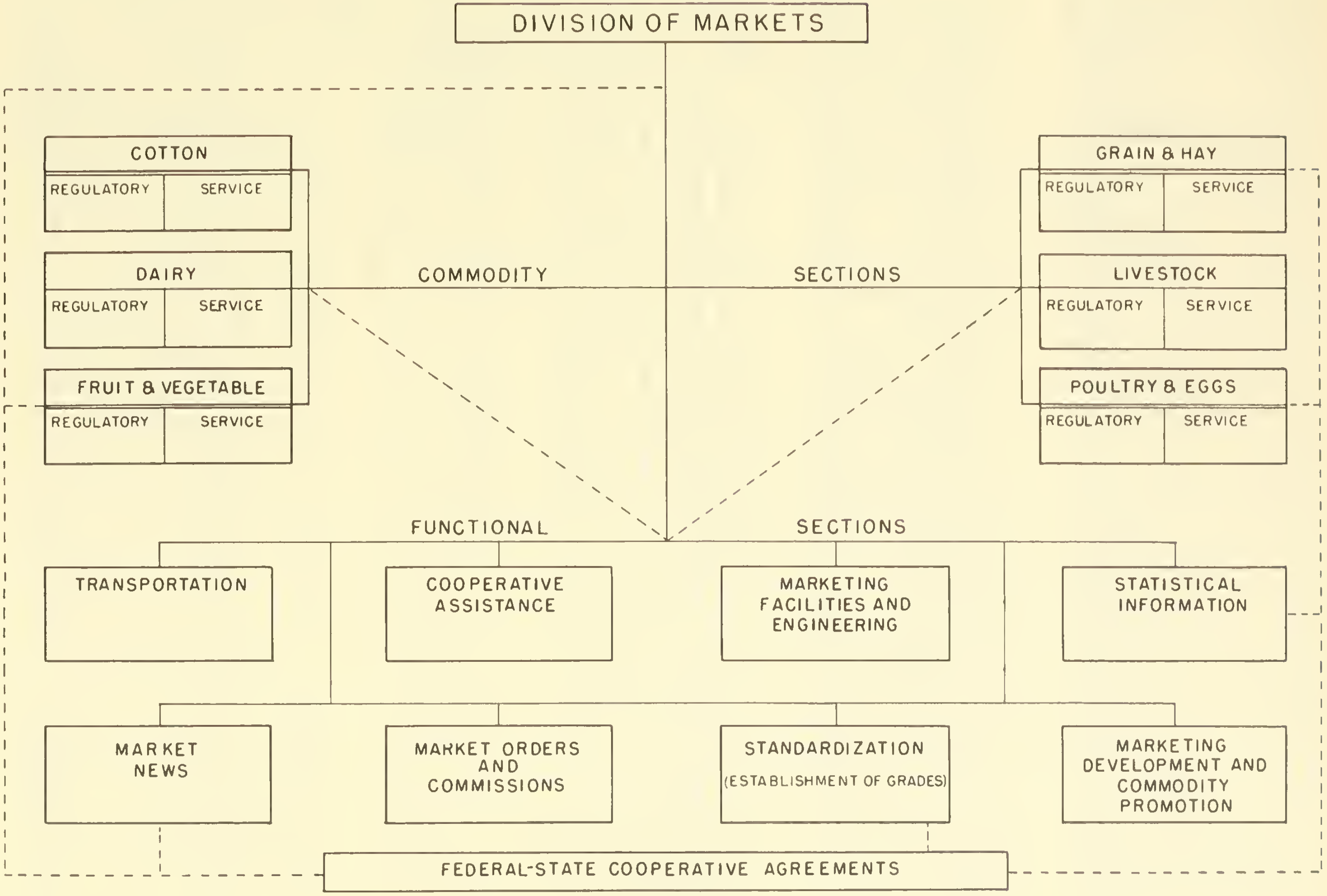


Figure 12

I'm sure that we have felt throughout this workshop that the door was opened for constructive criticisms and practical suggestions. This is, indeed, healthy and those who had the foresight to plan such a program are to be commended for it. The real purpose of the workshop is to improve our programs.

At the same time there is another door that is automatically opened with this one. It is the one of responsibility. Once having made the determination that there are better ways of doing a thing, we then have a responsibility for moving in that direction with all the energy and resources at our command. To tolerate a weakness or shortcoming is just a little removed from creating it.

In preparing this paper we have drawn on the resources of some 12 other States. Recognizing that we did not have all the problems in Kentucky, although sometimes it seems we do, I had my Director of Markets contact his counterpart in these other States and get from them their ideas. They all responded promptly and have supplied many valuable suggestions. I might add that we feel this was a fair statistical sample because of their geographic locations, their type of programs, their variation in size of programs, and the differences in time which they had participated.

It was interesting to note the great similarity of many problems. These we think are the ones which truly must be the problems and the ones which may well have a solution if our best efforts are directed toward them.

In reading these various comments, I was made aware of another startling but very true fact--we often have a tendency to create some of our own problems! This is a thing that causes me continuing concern in all my endeavors. There is often that natural tendency to fight the problem rather than solve it--to find out why we can't do a thing rather than to determine a way of doing it.

Speaking of creating some of our own problems reminds me of the story of the factory worker who sat down and began to eat his lunch. Shortly, in disgust, he lamented, "Cheese sandwiches, cheese sandwiches, always cheese sandwiches!" To which one of his buddies offered this solution, "If you don't like cheese sandwiches, why don't you have your wife fix you something else?"

To this the disgruntled man replied, "Wife! Whose got a wife? I fix these darn things myself!"

In dealing with a subject such as the one assigned we must look not only to the problems but also to the possible solutions. Naturally the problem must first be identified before its solution is forthcoming. I fear you will detect very promptly that I have far more problems than answers. And this is quite natural. The best answers will come from the constructive thinking of many. The discussions which follow these talks may well provide some good solutions. And I would judge that in these sessions there will be disagreement, but to disagree without being disagreeable is important to good wholesome and productive thinking.

I think also that it is imperative that we view each problem in total perspective, realizing that each of us reacts differently to a given situation because of our intimate relation to it.

Here I call to mind the story of the drunk who wandered into the hotel lobby and flopped down on a sofa and promptly went sound asleep. The manager, somewhat dismayed at this unsightly character, told his bell captain to call the police and have the bum removed. The captain had, what he thought, a better solution which he was given permission to try. Promptly he went to the kitchen and returned with some limburger cheese which he smeared on the drunk's necktie.

Shortly the drunk began to sniff, then he arose and marched swiftly from the lobby and onto the street. Everybody had a good laugh and thought the problem was solved. But alas, in some 30 minutes the drunk returned, again flopping down on the sofa, and in disgust remarked, "The whole darn world stinks!"

As we get into the meat of this subject, let me again caution that any indicated solutions are not necessarily the approved ones--I believe it was Disraeli who said, "It is easier to be critical than correct," and this statement certainly bears much truth.

In listing the problems, I found that they may be placed in some five general categories. Of course many overlap but I shall stick to these categories which will give us some system of cataloguing our work. I found this necessary in order to successfully extract the problems from the letters from the 12 States who sent their ideas to me.

The five areas of problems as I have outlined them are:

I. Finances
II. Project Determination and Establishment
III. Administration
IV. Reporting
V. Personnel

I. Finances

Although these will not be given any order of priority, I can truthfully say that adequate finances at both State and National level would go a long way in solving most every problem that confronts us in this field. Yet, I suppose that if we were bathed in funds, there would be gross inefficiencies in our programs. It would be gratifying to some if we could at least reach what seems to be the happy medium achieved by others.

Some of the fund problems are as follows:

(1) The difficulty of securing funds at the State level to establish and expand the programs.

Here I wonder if we are sometimes guilty of a poor selling job? Have we explored all the possibilities of securing funds? Maybe we need a project on this.

It should be remembered that State matching money can be derived from several sources:

(a) Legislative appropriations
(b) Mandatory checkoffs from industry
(c) Voluntary contributions by industry

Legislative action is necessary for the first two. Good public relations is generally the key to the third one. We should not overlook the potential of the voluntary contributions. As one State put it, "We have long ago become convinced that we can't make too much progress in securing adequate funds from economy-minded legislatures. Consequently, we have had to lean more and more on various commodity groups to furnish the money to match Federal funds now available."

Certainly commodity groups have an interest in these projects as they pertain to their industry. If they clearly see the value of them they may foot the bill if they can't get the legislature to do it.

Perhaps we can profitably draw on the successful experiences of others in this matter. One State indicated that its projects were all the products of advisory boards or farm groups. This points up a basic factor--we are a segment of the governments of our States. As such, we have a responsibility to carry out to the best of our ability the mandates of the people of that State. In areas such as these we are discussing, how do we know what they want unless we develop a system of asking them? Then, too, if they participate it is their program and they will carry the banner for it. In a recent legislative session I had the importance of this very forcefully demonstrated. This was a program that the people wanted but which met opposition from our executives--particularly the Finance Department.

This particular endeavor had a well organized State committee which had been active and they immediately went to work. To make a long story short, they came up with the funds they thought necessary to carry out their work.

Unfortunately we had not organized other fields to this extent, but the value of doing so is now apparent to us. This will be a part of our future endeavors. Full realization of the values of such programs to agriculture and the State as a whole will be needed before any legislature will appropriate funds to it. The problem thereby becomes one of education, requiring time, patience, and effort.

(2) The difficulty of securing funds at the Federal level to implement programs.

The factors involved here about parallel those at State level except they are expanded about fifty times. Some effort is now in progress by the National

Association of State Departments of Agriculture to get a larger and more united voice on behalf of these programs in Washington. I believe this effort would be enhanced if we can bring into the picture some non-professional people. The problem the professionals have is that too often people view their requests as being loaded for their own gain--slanted toward building their own empire.

There are those States which now have more projects and more State money than the Federal funds can match. As interest in this work progresses, this will very likely be magnified. We must, then, of necessity concern ourselves with getting additional interest in Congress or face the prospect of bearing a larger portion of the costs of these projects at the State level.

(3) Failure by Federal agency to match funds which the States have obtained in advance on the premise that they are to be matched.

This problem arises from a series of circumstances which will make it most difficult to solve. Most State budgets are approved by their legislature early in the calendar year -- the Federal budget is approved later. Many States operate on a biennial budget which makes the problem of projection even greater.

I know of no suggested solution here except that we must figure ahead on the projects we want to put into effect, then go after the funds at the State level, and maintain a hope that Federal money will be available. Perhaps we could establish our funds on a more flexible basis to permit their use for a smaller project if the Federal agency cannot fulfill its part of the proposed project.

II. Project Determination and Establishment

(1) How to determine projects of real value?

The initiation of projects simply for the sake of getting Agricultural Marketing Act funds will certainly not enhance our chance of success in the project nor our chances of obtaining additional funds in the future. One really good, well-conducted project is worth more than a dozen which are mostly "on paper."

There will be little difficulty in deciding upon projects which are suggested and sponsored by advisory groups with definite needs. We have the responsibility of seeing that the facts and germs of thought are properly placed to stimulate action by these groups.

(2) The problem of project statements.

There is a need for clear cut, concise project statements, devoid of wordy, superfluous platitudes--in brief, down-to-earth short and plain descriptions of just what is to be attempted. If a project cannot be described simply, in all probability it cannot be effectively nor satisfactorily carried out.

(3) Time consumed in approval at various levels before projects can be started.

This sometimes seems like a lengthy procedure and often takes months before clearance can be made to get the project underway. This procedure may be shortened but, because I do not understand all the procedures which it must undergo before approval, I will not venture any total remedy -- perhaps there is none. Yet at the State level I dare say we could expedite clearance to some extent by a more careful analysis of the project and by coordination with other groups in drawing up the specifications.

(4) Realistic determination by Federal authorities of the value of certain projects.

I detect from the responses of other States and from discussions in meetings that there is some area of disagreement on the value of projects desired by the States and not approved at the Federal level.

In one case cited, there seems to be some close correlation between the project desired and other Federal programs. It would seem that the two are complementary and certainly should be supported if funds are available.

III. Administration

(1) Problem of coordination and cooperation between State and Federal authorities.

There seem to have been a few minor difficulties in seeing everything the same way as some representatives of the Washington staff -- Bill Crow can take the "negative" of this debate I'm sure or, better still, he may well reverse the subject and take the "affirmative." As one State put it, "Our relations with Mr. Crow and his staff have always been cordial and satisfactory. We do not always agree with the Washington representatives who visit us, but I think we both benefit from these visits and are doing a better job because of them."

Another State notes that the program has worked much better since the overall contact has been centered with one man and cleared through him rather than branches, directors, or assistants. This I think is important and will go a long way in correcting problems of cooperation and coordination. A clear understanding of each others problems will go the rest of the way in solving this matter.

(2) Avoidance of duplication.

It is unwise to invite ill-will and criticism by trying to work the other fellow's side of the street. This brings up the matter of just what is our field of endeavor and what is the other fellow's. A clear understanding of just what research, education, and service is needed by the three agencies who carry on in these respective areas. There are in some instances jealousies resulting from misunderstandings as to who should do what.

Frequent meetings between responsible parties of the agencies concerned plus frank discussions at these sessions will materially aid in this area. We must keep in mind that duplicated efforts are costly and bring no credit to our organizations.

(3) Need for additional technical help from the Federal staff.

Some States which are new in the program point out that they could well use additional technical assistance in setting up their programs. This could be of particular benefit by bringing the successful methods employed by other States to them. Here again is a problem with merit which could well be solved by additional Federal money.

(4) Problem of accounting for time in offices where all State funds are on a matched fund basis.

In a small office, by necessity, much of the time charged to State projects must be on an off-set basis, i.e., Federal clerks at times must work on State cooperative projects and vice versa. It is usually hard to know where one stands on the use of matched funds unless there is considerable cross-accounting done. This has not been a serious problem in our office yet and we do not anticipate that it will be one. However, we have not had any Federal audit of these funds and we only trust that when we do the auditor sees the division of time as we do.

(5) Audit of funds.

Due to a shortage of personnel, we understand it is almost impossible to audit the accounts in these matched fund projects. We do, however, get an occasional inspection to see if our bookkeeping procedures are in order. For the protection of all concerned, some system of auditing should be devised where clearance can be given periodically. As an illustration of the importance of this, my office was recently checked and some matters that occurred prior to my term of office were brought into the discussion. As a matter of good business these should have been cleared prior to the departure of my predecessor. As it turned out everything was in good shape, but suppose it had not been? Who would have been holding the bag?

(6) Restrictive interpretations on the use of matching funds.

Some departments feel that recent interpretations on the use of these funds restrict their use and frequently are in direct conflict with the original intended purpose of one or more of the sources of the funds at the State level.

In light of this feeling, there could be a need for the reevaluation of the current administration of funds and a more realistic flexible type developed representing both State and Federal views.

I do not know the number of States which are burdened by this problem, however, it could have serious effects on the future advancement of the program. The following is a quote from one State.

"Marketing experts in industry and at all levels of State and Federal Government including the commodity branches of USDA have long advocated the merits of marketing various agricultural commodities by the expanded use of grades and grade labeling. It has been recognized that to accomplish this, wholesalers, retailers, and especially consumers must be better informed on the merits of such grades.

"Recent interpretations by matched fund administrators now definitely prohibit the use of matching funds for point-of-sale material in wholesale or retail outlets where marketing assistance is definitely needed and where it is even requested by major retail chains. Such display material is a recognized effective method of presenting sound grade and grading information to the potential customer.

"This is only one of several such interpretive restrictions which are now actually proving detrimental to modern expanded marketing work. (Authoritative Reference: Matched Fund Advisory Committee Minutes, November 9-14-15, 1956)."

IV. Reports

(1) Time involved in writing reports.

It is realized that reports may be classed by some as a necessary evil. Yet they do serve a vital purpose if properly outlined. Our people estimate that from ten to fifteen percent of the Federal money is used in preparing reports suitable for the Washington office.

Let me quote from another letter, "Two years ago I heard Mr. X tell a representative from a certain State he had an excellent report. At last I was going to see a good report and had this State send me a copy. If this is what they consider a good report then we haven't had good reports because their report was primarily on regulatory activities. So I'm still confused."

I detect that we need some serious discussions on reports. We need to know what purpose they are intended to serve and how they may better serve us. We need to determine how they can be made brief and simplified, yet descriptive and useful. Samples of good readable reports might be furnished to workers. Perhaps this would give the formula for getting on paper just what will be most effective for the people who will use the information.

(2) Dissemination of timely research results.

Reports of this type are often not available. This group could well consider the advisability of an exchange system of successful experiences between project workers in different States in lieu of formal research publications. This suggests brief progress reports pending the release of final reports.

(3) Annual reports due prior to end of period project covers.

This problem seems to be in almost direct opposition to the previous one. I included it partially to show the wide diversity of problems. Yet it may be combined with its predecessor to bring about some useful end. Those who object to annual or periodical reports as such do so primarily because they feel no immediate need will be served and they will simply duplicate their efforts in a subsequent final report.

(4) Proper dissemination of reports.

The problem of getting results of studies into the proper hands certainly is a challenging one. And, once they are there, will they make use of them? This, I believe, is closely related to the subject of participation discussed earlier as well as to the subject of readable reports.

If a particular group or segment has helped in some way in setting up the project the results will have much more meaning to them. If the results of a study are not used, then it must have been of little importance or someone has not thought enough of it to get it out where it can be used. We perhaps need a study and report on how to disseminate reports!

V. Personnel

Practically every State listed personnel problems which indicates the importance of these. These however resolve themselves into two general problems;

(a) Securing trained personnel
(b) Maintaining trained personnel

The first of these results from the temporary complexity of the projects plus the wage scale many departments operate on. The type of work required is somewhat technical and requires rather well qualified professional people. Most of these will search elsewhere for better salaries and work which seems to be more permanent.

This often forces us to hire and train personnel rather than hire trained personnel. This suggests short courses for training, perhaps by project groups.

The second problem in this category is experienced in those States where personnel are apt to change with a changing administration. The solution to this lies in a selling program that may take years to accomplish. No one is more aware of this than I am. We will have to amend the State's constitution to get relief here; however, we won't get it done by waiting. We will make an effort in this direction in the near future. I fear this is a problem which we must solve ourselves.

(3) One more problem occurs to me and that is the need for strengthening and expediting technical assistance from Washington. All too often this comes too late to assist. I suppose this is another one that additional funds would quickly remedy yet it is in essence a personnel problem at the level of the Federal agency. There are no doubt many other problems, however, these are some of the ones that seem more pressing and widespread.

In total, our problems narrow down to a few really basic ones, specifically: (1) Selling the matched fund program to the right people to get adequate support, (2) designing our programs to enable the respective departments to assist in more effective and efficient marketing of agricultural products, and (3) development of timely and effective reports.

SCOPE AND SHORTCOMINGS OF THE MATCHING FUND PROGRAM

William C. Crow, Liaison Officer
Matching Fund Program, State Departments of Agriculture

The establishment of a matching fund marketing service program by the Agricultural Marketing Act of 1946 came about as a result of two prolonged efforts--one by a group of State Commissioners of Agriculture and the other by the Committee on Agriculture of the House of Representatives. For a number of years several State Commissioners of Agriculture had sought Federal legislation to bring about a Federal-State marketing service program financed partly by Federal funds just as the Federal Government had long helped finance State research and extension programs in agriculture. The Bailey and Cooley Bills were drafted to accomplish this, but failed to be enacted.

At the same time, over a period of several years the House Committee on Agriculture was making an extensive study of marketing problems in the belief that the solution of these problems was of major concern to the welfare of agriculture and the Nation. This Committee was perturbed over the rising costs of marketing, the need for expanded outlets for the steadily increasing output of the Nation's farms, and the failure of either Federal or State agricultural agencies to concern themselves seriously with such problems. As a result of its investigation, the House Committee concluded that a continuing research program in marketing was needed to find the answers to marketing problems, and that these improvements should be brought about through marketing service. Each phase of this two-pronged program was to be carried out through the cooperative effort of Federal and State agencies and industry.

The conclusions of the House Committee were embodied in the Agricultural Marketing Act of 1946, which passed both Houses of Congress by a unanimous vote. This Act authorized the establishment of a marketing agency within the U. S. Department of Agriculture to carry on marketing research, service, and regulatory work, and directed the U. S. Department of Agriculture to work with State departments of agriculture and their bureaus of markets in the conduct of marketing service work, stipulating that Federal funds be used to match State funds for the support of jointly approved projects. In this manner the Congress expected to get action at the State level in solving marketing problems.

A marketing service program is an action program designed to bring about desirable changes in marketing--to solve marketing problems. It takes directly to marketing firms the best known marketing practices and techniques, and shows these agencies how to adapt their operations to changing conditions, how to increase their efficiency and reduce their costs, how to minimize deterioration and spoilage, and how to expand outlets. It also provides statistical and other information needed to facilitate the operation of the marketing system.

Collectively, the States participating in this service program are dealing with most types of marketing problems. They start by determining in advance the expected production of a product so that marketing plans can be made accordingly. By objective forecasting of production of Cling peaches in California, the Cling Peach Advisory Board may deal with an expected surplus by removing immature fruit prior to harvest and by planning diversion to canneries. Through collection and dissemination of figures on tomato plantings in Florida, production can be adjusted to market demands. Reports on sow farrowings, tree counts, and similar projects are of great assistance in anticipating and solving marketing problems.

Four States are developing ways of certifying virus-free nursery stock so that the growers' time and money will not be used in putting out virus-infested trees. Several States have ascertained from distributors the variety and package type preferred and have advised growers accordingly. Through such means as these this marketing service program is helping to bring adjustments in production.

Next, the program is helping to determine when products should be harvested by developing maturity tests for fruits, melons, and other products. By service work in the producing areas, proper grading and packing methods are demonstrated. Assistance is given in planning, equipping, and operating packing sheds, egg assembly plants, grain elevators, poultry processing plants, livestock auctions, milk plants, and other facilities in areas of production.

To enable growers to get the best price for their products many States under this program have developed country-point market news services which have brought local prices for eggs, fruits, vegetables, alfalfa, hogs, broilers, and grain in line with prices in other local markets and with terminal market prices. By finding or encouraging the construction of storage facilities, growers have been able to hold their products off a glutted, price-depressed market. By making available to buyers information on protein content of wheat and fiber tests of cotton, by growing areas, these buyers have been induced to pay higher prices for the quality they need.

Many States have found buyers for products in surplus production. Large quantities of peaches, apples, watermelons, and other fruits and vegetables have been moved by providing buyers from wide areas with advance information concerning the availability of these products. The States have originated, and cooperated with other agencies in putting on, special promotional campaigns for milk, cheese, pork, potatoes, and other commodities. When a product from a State has had a chronic problem with finding markets, its marketing specialists have visited the markets, ascertained what was wrong, and taken corrective action. In some such cases the wrong variety was being produced.

In others, the package type was wrong or the product was arriving in poor condition--immature or damaged by bruising. In still others it has been determined that some promotional effort was needed.

Several States are organizing special livestock sales where products are brought together and sold on a graded basis to buyers brought in from a wide area. Egg buying stations purchasing on a graded basis have been set up. Wool pools have been established. Assistance has been given in consolidating small milk plants. Tobacco growers have been shown how to sort their product to get the best price. Fruit and vegetable growers who have been offered low prices for their loads at markets have been shown how to throw out the lower quality and repack the remainder and, as a result, have taken their product back to the same market and obtained a much higher price. Small growers have been helped to organize themselves to be able to find satisfactory outlets.

Very significant results have come from marketing service projects to reduce deterioration and spoilage in marketing channels. Several States--Vermont, Mississippi, Wisconsin, Minnesota, North Dakota--have obtained samples of milk, butter, cheese, and other dairy products at various places in the distributive channel, checked the quality of such samples, determined the cause of off-quality, and shown the person responsible for the condition what to do to correct it. Samples of cotton picked up for classing have been checked for gin damage, and the operators of the gins responsible shown what changes in equipment or methods should be made to stop the damage. Eggs and poultry picked up in marketing channels have led marketing specialists to the causes of poor handling and poor quality. New egg laws have resulted and producers and handlers have been shown how to grade and handle their product. Considerable success has been achieved in some States in reducing rodent contamination of grain and in reducing damage from excess moisture and poor storage facilities. The quality of seed produced in three States is being improved by correcting deficiencies in processing and storage.

A few States are helping to solve transportation problems by working with carriers to get an adequate supply of good transportation equipment at harvest time. Shippers and haulers have been shown how to load products to minimize breakage and bruising. Three States have entered cases to hold down increases in freight rates. Extensive work has been done by some States with retailers--showing them how to display and handle certain commodities to increase sales. One State--Maine--has significantly increased sales of broilers by helping with a campaign to encourage chicken barbecues by organizations, backyard barbecues, and has even put on barbecues on television.

When marketing techniques change, the States are helping with the adjustments. They are helping to encourage and install potato washers and vacuum coolers. They are helping with the problem of bulk hauling of milk. They are assisting poultry processors in meeting the requirements of Federal inspection. They have helped to get meat-packing plants and canneries into areas without satisfactory outlets.

These examples of activities underway show that almost every type of marketing service work is being carried on by somebody. Collectively this makes a rather well-rounded program, but to be able to paint this picture it was necessary to draw on examples from nearly every State in the program. Another way to show the scope of the program is to point out that 36 States and Territories are working on quality maintenance, 23 are engaged in activities to find markets or expand outlets for agricultural products, 20 are assisting marketing agencies in increasing their efficiency and holding down marketing costs, and 28 are collecting and disseminating marketing information. But in classifying the work this way we should not lose sight of the fact that in most of these States the work being done involves only one group of products--not all the products important to that State.

By commodities, 31 States are working on fruits and vegetables, 25 on poultry and eggs, 24 on livestock and meats, 21 on dairy products, 18 on grain, and 3 each on cotton, seed, and tobacco. Having considered the scope of this matching fund program, let us turn our attention to some of its shortcomings.

First, it should be pointed out that no State has a well-balanced program, although some approach it much more nearly than others. This expanded program of marketing service started only 12 years ago. At that time most States lacked competent personnel and experience in this work. Hence, the usual practice was to start working on one problem for one commodity and, to a great degree, each State chose a different one. With this approach it is not surprising that at this time some States are putting most of their resources into collecting and disseminating statistical information and doing nothing to help reduce marketing costs. Others are working on quality maintenance, but doing little to expand outlets. Some are working on fruits and vegetables but are slighting poultry and egg problems, and some States apparently haven't yet heard of the matching fund program. Serious thought should be given in each State to the adequacy of the program to meet the needs of its people. Are the most important problems receiving attention or was the work being done selected largely by accident or because of the personal interest of some employee? Do you have a well-balanced or a lopsided program? What mechanism do you have to make certain that you are working toward a well-balanced program, developing each part in order of its importance?

A second weakness in marketing work in the States is that in all too many States nobody is in charge of it. Apparently the program is supposed to develop and run itself. Marketing activities are scattered through several bureaus or divisions with little coordination. In some States marketing service activities are not all in the same department, but are carried on in several agencies with no common head below the level of the Governor. To make matters worse, in some cases a marketing activity is placed in an agency whose primary responsibility is in some other field and whose head has little or no background or interest in marketing. Unless marketing activities are brought together into one division or bureau with a competent head, who is going to take the responsibility for developing a well-rounded program, and who is going to see that the different parts are coordinated, to whom is industry to go with its marketing problems? Who is the commissioner of agriculture going to hold responsible for this aspect of his program? And whom are we, who are trying to administer this matching fund program, to deal with? Under these conditions, is it surprising that when we request important information from a State the request often does not reach the man with the answers; or that when the Workshop is over sometimes the marketing worker who handles the subject discussed at the meeting didn't know it occurred; or that when we mail out a research report vital to a project it never finds the right person? Can we or you develop and carry on a good marketing program without the proper organization?

Another shortcoming of the matching fund program is the lack of continuity of personnel. To be able to show marketing firms and agencies how to do a better job a specialist in the subject is required. He must know the subject, and be known and respected by industry people throughout the State. Such persons are scarce. How are you going to attract them if you cannot assure continuity of service? How can you build a program with agriculture and industry in any subject if every time an organization contacts your department on a subject, he must deal with a different man? How long will they keep coming to you with their problems under such conditions? What is the use of having these workshops to train people for a job that they won't be on next year?

Another deficiency of the program is the lack of coordination of the marketing research, service, and extension work in many States. Why don't the three State-supported agencies in marketing find it to their mutual interest and to the interest of the people they serve to work more closely together? Is it too much to expect to have the responsible heads of these agencies meet together and with representative groups from industry to determine the most important marketing problems in the State and agree among themselves as to the part each can play in bringing about the solution? Cannot research in marketing be aimed at finding the answer to a problem, and cannot the service and educational agencies take these answers to the people and get the required action taken? Won't we all accomplish more in the field of marketing by working as a team? Won't that give the taxpayers more for their money?

A final shortcoming of the matching fund program that I should like to bring to your attention is the lack of collective effort of the State Departments of Agriculture to make this program an effective force in solving the marketing problems of agriculture. It has been the efforts of certain individuals that have brought the program where it is. Some States seem to feel no responsibility for helping develop this nationwide marketing service program. More group effort of State officials and their organizations will be required if this program is to achieve maximum results.

Thus, we see that the matching fund program has been a real help to many States in rounding out their marketing program. It has brought benefits far in excess of its cost to farmers and marketing agencies. But the most effective results will not come until each State has a balanced program; with its marketing activities brought together under a competent head; the work done by persons who can remain on the job long enough to master it and command the respect of the people they are endeavoring to serve; the resources for research, service, and education brought to bear on the problem at hand; and State commissioners, secretaries, and directors of agriculture, together with the heads of their marketing divisions, pool their efforts to make this program a vital force in solving marketing problems. The only persons who can make this marketing service program what it was intended to be are you leaders in the States. It is your program. Its future rests with you.

IMPROVEMENTS NEEDED IN ADMINISTRATIVE PROCEDURES

William C. Crow, Liaison Officer
Matching Fund Program, State Departments of Agriculture

If any program is to operate effectively some administrative procedures are needed. When two or more agencies are involved, as in the case of a Federal-State matching fund program, administrative procedures are even more necessary and often are more complicated. On this matching fund marketing service program we at the Federal level must operate under certain laws and regulations. The States likewise must comply with their laws and regulations. We would like uniform procedures with all States, but the laws in the States differ, so complete uniformity is out of the question.

Against this background and with 12 years' experience in the operation of this program we have tried to develop procedures that will meet our joint needs and not be unduly burdensome. In order to make it as easy as possible for people to know the procedures, they have been written, published, and distributed to the State and Federal people who are affected by them. This publication is called "A Guide to Procedures Relating to Marketing Service Programs Conducted under the Agricultural Marketing Act of 1946."

For the benefit of those of you who are not too familiar with these procecures I will summarize them before proceeding to a consideration of some improvements that are needed.

1. Cooperative Agreement

The first step to be taken by a State interested in participating in the matching fund program is to enter into a cooperative agreement with the Agricultural Marketing Service. This document sets forth in the broadest terms the mutual responsibilities of the State and the USDA, and may be thought of as the charter under which the entire AMA matching fund program is to be conducted.

2. Approval of project statement (Form AMS-710)

After the cooperative agreement has been signed, any number of projects may be developed under it. The project statement is drawn up by the State on forms (710) provided by the AMS. It outlines the nature and scope of the marketing problem to be solved, the general plan of work, and lists the cooperating agencies. When approved by the AMS, it authorizes the field of work described on the commodities listed. These projects fall in any one of four general fields.

3. Submittal of Annual Work Plans and Fund Request (Form 712)

Project statements, except for experimental market news work which is limited to about two years, are generally approved for a period of years or on a continuing basis. To have a basis for intelligently allocating the annual appropriation among the projects we need to have a clear picture of what you propose to do under each project during the forthcoming fiscal year and the amount of money that will be required. As administrators you likewise need a work plan before the start of your new year so that you and your marketing personnel will know precisely what is to be done on the approved project. Thus, the annual work plan and fund request is a document just as important to you as it is to us. We must have this document for each of your projects about May 15 of each year if we are to notify you of your Federal allotment before the beginning of your new year on July 1. A copy of your work plan is stapled to your approved project in our permanent file and becomes a part of the legal basis for your expenditure of funds.

4. Certificate of Availability (Form 714)

Before Federal funds can be sent to a State we must have received a certification from a responsible State official that the required State funds for matching purposes are available. This document is usually sent to us with the work plans and fund request.

5. Allotment of funds

After the allotments of Federal funds are completed and approved by the Administrator, the States are notified by letter of their allotments. This is usually the last week in June, and shortly thereafter payments representing about 60 percent of the allotments are sent to the States to carry on the work until the end of January by which time the second advance should have been received.

6. Final Financial Statement and Approved Budget (Form 711)

About August 15 of each year we request the States to submit their final financial reports for each project for the preceding year. This is the legal document showing the actual expenditures of Federal and State funds on each project, on which the Federal expenditure cannot exceed that of the State. This form also shows the amount of Federal and State funds carried over at the end of the fiscal year and the actual operating budget for the current year (which may have been revised since the fund request was submitted in May). This report, which was signed by the State official, is reviewed by the Liaison Office, and if no adjustments are necessary is signed for the AMS. It is againt this document that audits of expenditures are made. Only after it has been received, reviewed, and signed will the second advance of funds to the States be made.

7. Annual progress report

By the end of September of each year we need a report on the accomplishments under each project for the year (Oct. 1 - Sept. 30). This reporting period was chosen so that all work for a crop season can be reported within one reporting year. This report on what was actually done on each project and what good it did is the main report on which the work is judged by us,and I feel sure you must use it for the same purpose.

These are the administrative procedures, which have been worked out with the assistance of our Advisory Committee representing the States. Now let us consider the improvements needed. At the outset I want to point out that we are pleased with the improvement being made in most States in handling the administrative details connected with this program. Financial reports and reports on work plans and accomplishments are reaching us more nearly when they should. Fewer errors are showing up in the financial reports and the content of your progress reports is on the whole much better than a few years back.

While we can take pride in the fact that we are doing a better job, we still cannot overlook the fact that improvements are needed. Some may argue that it is the results that really count, and that the efficiency, or lack of it, with which administrative matters are performed is of no great consequence. I would be the first to agree that results of the work are of primary importance.

But we still need to conduct the administrative affairs in a business-like manner. We must comply with the laws and regulations, and cope with the conditions necessary for the advancement of the program. I suspect there is some relationship between administration and the quality of the work done. Hence, it is to our mutual advantage to have the program well administered. It won't run itself, and failure to comply with the procedures usually makes extra work for us all.

One of the main places where improvement is still needed is in the report on accomplishments on each project, which you send us each fall. These reports need to set forth more clearly what was done during the year on each project and what good it did. These accomplishments should be stated as specifically as possible, and it is always helpful when the results can be measured in dollars and cents, in increased sales, or in the extent of quality improvement. You need reports like this to judge your program and the quality of work done by your people. We need exactly the same information in order to be able to give the Research and Marketing Advisory Committees, the Congress, and others a more realistic and favorable picture of your work. Such reports will also help you in publicizing the work in your State and in explaining to your industry groups and your legislature the importance and value of what you are doing. Besides sending us a good progress report once a year, it would also be helpful to us if you would inform us at any other time of the year of any significant example of accomplishments, send us a print of a good photograph showing something you did, or let us have a copy of some unusual letter about the program. We cannot adequately represent your program at the Federal level if we don't know what you have accomplished.

Another problem area in the administration of the program is in the reporting by the States of project expenditures and carryover balances for a fiscal year. When the financial data you submit on Form 711 does not check out, as is too frequently the case, it requires extra work on both your part and ours to straighten out the matter. Errors in these reports probably stem in most cases from inadequate records. The completion of this form should not be difficult. You merely start by entering the total Federal and State funds that were available for the project, then enter the expenditure of Federal and State funds separately, and wind up with the amount of each carried over into the following year. This carryover plus your new funds constitutes the amount available for your budget for the following year.

Closely related to this problem of getting an accurate report on expenditures is that of having adequate financial records. The most frequent criticism sent us by our auditors is that the accounting records did not provide the needed information. What is the needed information? Simply a record that will show for each project the amount of State and Federal funds available at the beginning of the year, the expenditures for the project properly documented, with the expenditures of Federal funds not exceeding that of the States, and the balance of State and Federal funds left at the end of the year. No particular bookkeeping system is prescribed. It must merely provide the above information. The easiest way to avoid problems of this kind is to:

1. Place one person in charge of the records who will be responsible for seeing to it that all vouchers are properly documented, that postings to ledger accounts are made currently, and that the financial reports are accurate and submitted when due.

2. When State regulations permit, deposit both Federal and State monies in a single fund so that expense items will be automatically divided on a 50-50 basis. This will avoid the necessity of juggling two separate accounts for a project to keep them in balance.

3. Establish separate ledger accounts for each project. Each such account should contain an entry or entries showing the amount of funds available to the project during the fiscal year. If a continuing project, one of the entries would represent the carryover from the preceding year; this plus the new funds would equal the total availability. All expenses made during the year would be entered, and from these records it is a simple matter to determine the unexpended balance.

I do not wish to imply that problems associated with record keeping and financial reporting are troublesome in all States. In a majority of States, we are receiving the financial reports on time and little, if any, adjustment is needed. We should strive to attain the same goal in all States. As some of you may know, representatives of our Internal Audit Division now have underway a survey of all States in the program to review accounting procedures and record keeping to determine their adequacy. We are pleased to report that the results so far in the limited number of States surveyed indicate that good progress is being made in installing adequate accounting systems for the matching fund projects.

In my opinion most of our problems in adherence to administrative procedures are in those States where no one person has been assigned the job of supervising and directing marketing work. Often in such cases nobody really keeps up with the program, one person is informed about something while another is not, and it is nobody's job to see that the whole job is done. It is my impression that it is also these States that are having trouble developing and conducting well-rounded marketing service programs. If the State Commissioner of Agriculture is not going to administer the marketing program himself, and most of them cannot, he must have some competent person designated to do it for him. Since so many of the problems connected with this program stem from the lack of a single head in each State, our Advisory Committee at its most recent meeting unanimously instructed the Liaison Office to request each State to designate a contact man for all of its matching fund marketing service projects.

The matching fund program can be a means of getting many important marketing problems solved at the State level. It can be the lever that tones up and rounds out your entire marketing program. It has done much good, and its usefulness is increasing. But to get maximum results, to get the most for each dollar expended, and to earn the greatest respect for our program, we must have good administration at both the State and Federal level and proper coordination between the two. By putting our minds and energies to it, this can be accomplished.

CONCLUSIONS AND RECOMMENDATIONS

On scope and problems involved in conducting matching fund marketing service programs

The specific area of conducting matching fund marketing programs received the attention of the group in its third session.

Problems experienced by the 36 States and Territories participating apparently may be consolidated into the three basic areas of:

1. Selling matched fund programs at both the State and Federal level to receive adequate financial support.

2. Designing our programs to enable effective and efficient marketing of agricultural products.

3. Development of timely and effective reports.

Specific recommendations for improving the total matching fund program were summarized as follows:

1. Since there are many State programs which are not presenting a balanced area of marketing work and,therefore, leave many areas untouched,

it is recommended that marketing officials carefully explore new areas of work in addition to improving existing services.

2. Coordination within a Department and within a State is essential and it was, therefore, recommended that one person be designated as coordinator in the Department and that regular conferences be held among service, extension, and research people engaged in this field of work.

3. Training of personnel engaged in marketing work was emphasized as being essential for program improvement. Attendance at the Workshop as well as at special conferences was recommended. Continuity of personnel was also considered essential.

In summary, it was pointed out that the matched fund program is not a Federal program - but one of the States collectively. Commissioners, marketing chiefs, and all participating in the program must accept their responsibilities in administering and improving the total program.

THE USE OF PUBLICITY IN A MARKETING PROGRAM

Work Group Sessions

THE PURPOSE OF A WORK GROUP ON PUBLICITY

William C. Crow, Liaison Officer
Matching Fund Program, State Departments of Agriculture

Marketing service work is an action program designed to cause growers and marketing agencies to make changes in their methods of moving farm and food products from the farm to the consumer. These changes or improvements in marketing are desired for many reasons: To hold down marketing costs, to prevent or reduce deterioration and spoilage, to make the product more acceptable to consumers, or to expand outlets. Getting these improvements made may require changes in facilities, the use of a new piece of equipment, a different type of container, handling in a particular way, installation of refrigeration or a vacuum cooler, stacking products a certain way in a railroad car or truck, planting a different variety, a better understanding and a wider use of grades, more information about future supplies or present prices, the development and conduct of a promotion program, and dozens of other things.

Marketing specialists are working with growers and marketing agencies to get these changes made, but their work can be made easier, the changes can be brought about quicker, and more people can be reached if their work is supported by the right kinds of publicity.

There are many kinds of marketing information that should be publicized in understandable form: Crop forecasts, plantings, market supplies, prevailing prices, research results on a host of subjects, best known marketing practices, etc. To be most effective this information must not be put out with a shotgun approach but aimed more precisely at the target like a rifle. Articles should be especially prepared to appeal to the group whom we are trying to influence. The publicity medium should be carefully chosen: bulletins, popular leaflets, newspaper, magazine, radio, or television. Exhibits, displays, and demonstrations can also be helpful.

Most people engaged in information work know little about marketing, but, at the same time, marketing specialists are not skilled in the handling of publicity. Hence, to get maximum results from a marketing service program more team work between the information man and the marketing specialist is needed. Therefore, one purpose of this work group on publicity is to facilitate this teamwork in getting necessary action on marketing problems. An attempt is being made to give information people a better understanding of the kinds of marketing information available and the uses to which each may be put. At the same time we hope marketing specialists will get a new concept of the assistance they can get from the information man.

There is another reason why we are concerned with publicity and the contribution it can make to a marketing program. This matching fund program is comparatively new. It is not as well understood as is the work of Experiment Stations or the Extension Service. Perhaps most people in your State don't know what marketing service is. Certainly a large portion of them don't know what you are trying to do, much less why you do it. A prevailing opinion of a State department of agriculture man is that he is only a policeman out to enforce a regulation, to levy a fine, or impose some other kind of punishment for infraction of some rule. Many people like to avoid the policeman, so for marketing service people to be well received it is necessary to dispel the idea that all a State department of agriculture man does is to conduct regulatory work.

Your people need to know what kind of marketing services you are rendering, why you are doing it, what problems you are trying to solve, what good it will do if you solve them, and it certainly would do no harm for you to let them know some concrete results of the work you have already done. When your people find out what you are doing and what you can do, persons with marketing problems will seek your help and your marketing specialists will be well received.

In this connection I would like to point out that the U. S. Department of Agriculture has a large number of advisory committees, each usually having 11 members, to review and make recommendations on research and marketing activities with which the Department is connected -- including your matching fund marketing service program. The members of these committees come from nearly all the States. Your commissioner has a list of them. When we appear before them, or any other group, to explain your work, it would be a big help if the individuals were acquainted with what you are doing. On many occasions when have appeared before Congressional committees to explain your program it has been very helpful to have one of the members of the committee take over and explain the activity in his State and point out the good it has done.

Hence, the second reason why the program committee planned a work group on publicity was its desire to have your marketing program better understood by the citizens of your State. We feel that an excellent program has been planned for the three days. Jack Gilchrist, your work group leader, is a newspaper man with long experience. Your secretary has devoted many years to information work. Excellent speakers are opening up the subject each day. The first day will be spent on publicizing marketing information, the second on publicity as a means of expanding outlets, and the third on informing the public about marketing improvements and programs. We hope that after these three days you all will have a better concept of the place of publicity in a marketing service program, and the team work needed between marketing specialists and information specialists.

IMPROVING THE DISSEMINATION OF MARKET NEWS

Spencer G. Duncan
New York Department of Agriculture and Markets

It would be extremely naive to think that we have reached the end of the line in perfecting the dissemination of our market news reports or even to believe that we can really reach the hoped-for achievement of the perfect market report. Market reporters have made great strides in raising the level of their reports to the art they are considered today. In New York State we have been fortunate in having been chosen a proving ground for many new market reports.

In as dynamic a world as is this in which we live, it is imperative that market reporting and the dissemination of this important commodity keep pace with the rest of the world. To do this there is more than enough work to keep a sizeable office staff busy writing interdepartmental memorandums of methods that have gone out of style. Quick, accurate reporting is needed in the entire field of market reporting.

A market reporting schedule that is adequate for potatoes this season may well be antiquated by the time the tubers are dug the following summer. The need for change in market reporting is perhaps more definite than in any other agricultural endeavor because our reports reflect not only the changes in the marketing of agricultural commodities but also the changing requirements of the general consuming public.

Market reports must change with each whim of agriculture as well as with the throbbing tide of human relations. To this great task I must congratulate market reporters for having done a creditable job. But we must also be flexible enough to meet the demands of a changing system of communications. In this area we are open for improvement.

In New York State we have an intricate network of market reporters and reporting stations. Within a matter of minutes our Albany office can compile the changes in a market or marketing area with information pumped into our regional offices by a competent staff of field personnel. If a sudden frost kills a stand of corn in the Hudson Valley or an unpredictable hail storm raises havoc with the western apple orchards, we can have this information nearly as soon as it happens.

Field men are then directed to visit the affected areas and evaluate the extent of damage and its possible effect on the market. This information is valuable not only to our marketing staff, but it is imperative that it be relayed to the consumer and buyers and growers in all areas of the State.

This is an important area in the dissemination of market news in which I feel we have fallen down. We do not have adequate facilities to give a statewide report of this information at the minute it happens. There should be a tie-in with radio and television that would allow the reporting of this valuable information within a matter of minutes and not just at the scheduled market reporting broadcasts.

We do know of one station in New York City that frequently refers to market news reports throughout the day. Although these spot broadcasts are dedicated to consumer information of better buys, I think that, in a pinch, we could have them put out a rapid report to farmers. This is the only station in the State we know of that might give us this important assistance. It is a step in the right direction, but we do have more agriculturally important areas than the heart of New York City.

I believe that we could expand to other radio and television stations if we were to offer continuous service of consumer information. But radio and TV are not receptive to this idea unless they can be guaranteed of full support. We have not had sufficient manpower to implement such a reporting service, but we have considered it.

It may have been a poor example to have chosen hail and frost to bear out this important point of instant communication and dissemination of market news. In New York, such environmental conditions do happen and are important but I am sure that some of your States are not confronted with these natural difficulties or, at best, they rate second to other more disastrous handiworks of mother nature.

But, we all have fluctuations in the market supply of agricultural commodities and, with this thought in mind, I can bring forth the thought of immediate dissemination even better.

Recently in our State, as with other areas of the country, we have had an over supply of medium eggs. It was interesting to note that the price range between mediums and large were highest at the extremities of our marketing network, that is, Buffalo and New York City. In the central regional markets the price range was much closer. It would be an ideal arrangement to have had communication channels open and available between these market areas in such a manner as to even the supply throughout the State.

This problem could be eased in a quick early morning market report, by the local radio stations, of the previous day's market conditions in all of the regional markets thoughout the State. Buyers and sellers could then benefit by the information of supplies in all sections of the State rather than just their own immediate marketing area. This system would in a sense broaden the marketing area to include the entire State and not just regional sections commonly thought of as one's market area. Out-of-State suppliers might also benefit from this instant report of market conditions and lessen the load at the natural points of entry--Buffalo and New York City.

To a small degree we were able to carry out this type of market news dissemination during our last flush period of medium eggs. But it was done by phone and not through radio stations, which would have been the ideal method of dissemination.

Through our market news service we were able to alleviate this supply problem to a degree. This was done through another very valuable and important service of extended consumer reports. In these reports we explained the good buy that was to be had in medium eggs. But consumers are tough birds to deal with when it comes to changing handed-down practices of buying to tradition rather than economic situations. This thought brings me to one more important phase in the dissemination of market news reports.

Market reporting to the consumer can and should be a specialized avenue of communication -- not incidental to the regular reports issued to the tradespeople. In New York State we issue regional "better buys" reports aimed directly at the consumer. These reports are conducted on a weekly basis and reflect the supply of local commodities as well as good buys on produce that is imported into the State.

The consumer is not particularly interested in the conventional market terminology that we have adapted and perfected through years of experience. The consumer can be affected by our market reports. However, there are a few thoughts that should be considered in writing a consumer's market report.

First, the consumer must be confident that what we say is the gospel truth and if we say the local potatoes are a good buy they darn well better be just that. Secondly, we have to tell the consumer that a product is a good buy in simple everyday words - we can't beat around the bush with phrases of high and low demand and weak or steady supply.

Once the consumer has confidence in market reports as a logical and easy way to gauge weekly shopping expeditions then I believe we can markedly affect conditions on the market. Market reports are not a panacea for stabilizing the market, but we can do a better job than we have done.

I mentioned that we have slipped some in telling the consumer what is a good buy by disguising our meaning behind a conglomeration of market terminology that isn't uniform even among market reporters. In New York we have made gains in compiling a uniform language for market reporters. A regional market reporter in Buffalo can write the same copy for a New York City reporter if he were asked to fill in. I am afraid that we cannot do this with the people who read our reports, although it would be a great help.

The consumers' language is a specialized form of communication in itself and, although we are both market reporters and consumers, I fear that we are more familiar with the language of the marketplace than we are aware of the common talk of the consumers.

To a degree, the wire services forced us to take the path we have taken by continued pressure to minimize the amount of copy that goes with a market report. In all reality we should have market reports that are twice the length they are. Even buyers and sellers have difficulty at times in interpreting market reports - and consumers to a large degree are completely in the dark with our regular daily reports.

A weekly or bi-weekly consumer report of better buys is an important part of market reporting but it should be supplemented with a concise daily report that can be read and understood by buyers, sellers, growers, and consumers.

One other thought that I would like to throw out for future consideration is the idea of quoting prices and conditions of premium lines of commodities.

Many States are promoting a premium line product under a State trademark or seal of quality label. In New York, as you know, we have been energetically working with the Empire State Trademark Red Label program on several important products and we feel that the importance of this additional grade deserves a quotation of its own.

Inasmuch as this is a quality product and an important commodity in our marketing world, it would be a great boost to State-sponsored promotional campaigns of these trademark products. A price quotation of these quality products might easily be the added push needed to have more producers conscious of the importance of a quality controlled product.

I feel that the items I have mentioned -- constant evaluation, expediency of reporting, and the need of a specialized consumer language -- are important as the basic step in improving the dissemination of our market news. With these items under control we can proceed to make better use of the media used in the dissemination of news.

In New York we make extensive use of the press and radio. We have tried to tailor each report for the different media and, inasmuch as television has gained such an important place in the home, we are exploring this important field.

Television stations have done a great service to weather reporting by the use of maps and other visual aids. With a minimum of effort on our part I think that we can proceed down the same avenue with a program of interest to consumers, producers, and buyers.

We must keep abreast of the changes around us and never believe that we have reached a point of no further improvement. Especially, we should be cognizant of the consumers' needs because, with a selfish thought in mind, any report that we can write that is of great interest to the consumer, is also a report that newspapers and radio and television stations will feature.

PUBLICIZING OTHER KINDS OF MARKETING INFORMATION

Bert Johnson, Marketing Information Division,
AMS, U. S. Department of Agriculture

Our total job in marketing information--State and Federal--is very broad indeed. It stretches out as wide and deep as agricultural marketing itself.

We sometimes hear it said that agricultural marketing extends all the way from the farm gate to the consumer's table and clothes closet. That is one quick way of indicating its scope--and it does serve to tell us that marketing is a many-sided and complex series of operations.

But still, that definition is too limited. For marketing begins with the producer who plans his production ahead in light of expected market demands of the future--and who must guide his marketings as best he can during his seasons of production. And then, at the consumer's end of the marketing chain, agricultural marketing also includes the important matter of consumers' reactions for or against the products they buy.

In marketing information, therefore, ours is a broad charter of service to producers and consumers -- and to the dealers, handlers, shippers, packers, storage firms, transportation agencies, processors, and wholesalers and retailers who get farm products from the farms to consumers at the times needed, and in the quantities and forms consumers want.

This is the task that is cut out for all of us in marketing information work, in the State Departments of Agriculture and in the U. S. Department of Agriculture. It is a big job calling for a lot of cooperation, a lot of hard work by all of us -- and the use of all the information tools and talents we can muster.

Among the tools we are using -- and can still use to even greater effect -- are the many specific types of informational source-materials that are available. The operation of marketing programs themselves provide us very often with effective channels for distribution of marketing information. But my remarks here are directed largely at the kinds of information we have available, and how we can use them.

Agricultural Estimates

I have here a copy of the latest national Crop Report. It is the product of the Federal-State Cooperative Crop and Livestock Reporting Service. In this work, as you well know, the State Departments of Agriculture and the Agricultural Marketing Service work together to collect and publish current statistics on crop and livestock production, prices, farm employment, and wage rates. Most of these statistics are published monthly by States and for the Nation as a whole.

The reports and releases which your offices and ours put out on these statistics provide a continuing and most basic service to farmers and to the many firms which handle farm products. They help producers in shaping up their plans for production and marketing. They contribute to orderly and fair marketing by making available accurate and unbiased information to farmers and dealers. And they provide information to transportation agencies and marketing firms regarding market supplies.

The Crop Report, issued about the 10th of each month, and Agricultural Prices, issued around the 28th of the month, are factual tools of the first rank. Closer study and wider use of these reports can help all of us in our marketing work.

At the same time, we have an informational responsibility -- a mutual one -- to the Cooperative Crop and Livestock Reporting Service. As I see it, this responsibility falls into three categories:

(1) To disseminate current crop and livestock statistics to farmers, marketers, and others who need understanding of agricultural conditions and problems.

(2) To encourage public understanding of the increasing importance of adequate agricultural statistics, in order to serve the developing needs of an expanding and increasingly complex economy.

(3) To continuously strengthen the cooperation and participation of farmers and others in filling out and returning the questionnaires sent regularly to them by the State Agricultural Statisticians. As you know, the Crop and Livestock Reporting Service is heavily dependent on the thousands of farmers in each State who fill out and return their answers to queries on crop and livestock conditions. To help with this task is ESSENTIAL, for it is a continuing job of vital importance.

Agricultural Outlook

Closely related to the reporting of statistics from the farms is the work of demand, supply, and price analysis for agriculture.

This week in Washington the economists and home economists of the USDA and the Land Grant Colleges are meeting in their Annual Agricultural Outlook Conference. They are discussing the analyses and forecasts of AMS economists and those of other Federal agencies relating to the national outlook for the economy as a whole, the outlook for next year's markets abroad; and the impact of expected changes upon farm families, farm incomes, and specific farm commodities.

Incidentally, I have a small supply of the 1959 Agricultural Outlook Charts book here, and will pass them around the room. Both the charts in the front and the tables in back of the book can be very useful -- either as visual information materials or as sources of background data. It was distributed yesterday at the Outlook Conference.

The Outlook Conference each year is the take-off point for State outlook programs in many States during the winter months, with many of the State Extension Services carrying outlook information to their farmers through county and community outlook meetings, and through press and radio.

This outlook information -- and the full set of reports now being issued for 1959 is about a foot high -- represents a synthesis of all the known important facts bearing upon next year's farm prospects. As such, it is a primary agent for guidance of farmers' production and marketing plans for the year ahead -- and in some cases, for several years ahead.

This is marketing information, in its truest sense, as you are well aware. Most, if not all, of the State Departments of Agriculture are giving valuable help during the year in the dissemination of outlook and situation information. And at least one State -- possibly more -- is helping its farmers and marketing agencies through preparation and dissemination of detailed and localized outlook information.

Outlook analyses and forecasts are, of course, always grist for the information mill -- because they are always of high interest to news outlets and to their readers and listeners. These reports help explain present marketing situations, commodity by commodity, and discuss the important factors in the outlook for the future.

Under titles such as "The Demand and Price Situation," "The Farm Income Situation," "The National Food Situation," "The Marketing and Transportation Situation," and the various commodity situations, these reports are issued regularly throughout the year. And, to the full extent needed and possible, they provide much data by States as well as for the United States as a whole.

"The Farm Income Situation," for example, publishes data by States on farmers' cash receipts from marketings, farm expenditures, gross and net farm income, per capita income of farm people from farming, and net income of farm people from all sources. And these are but examples of the State income data published at various times during the year in this one periodical.

"The National Food Situation," in turn, is the parent report originating statistics on per capita food consumption, and presents many analyses on trends and levels of food consumption.

And of course "The Marketing and Transportation Situation," is the one regular periodical report of the Department containing information on the cost of the "family market basket" of foods, and other data on marketing costs and the farmers' share of the consumers' food dollar.

"The Demand and Price Situation" is also of great interest to marketing specialists of all kinds, including marketing information people. This report, a monthly, provides a run-down on the situation and outlook for all major farm commodities.

The usefulness of such information in marketing work is very clear. It helps us to channel our attention toward the tasks of most pressing urgency for producers and marketers. Fuller use of this information, I am sure, can bring us closer into tune with our rapidly changing situation and needs in marketing--and with the changing situation of agricultural production.

Also, as a practitioner myself in marketing information, I cannot fail to add a comment on this one wholly practical aspect of our job. This is just a comment that each of these analyses and forecasts provides us a continuous stock of good "news hooks" to hang releases on -- and magazine stories, radio and television programs, bulletins, exhibits, and even speeches by agricultural leaders.

Let us always remember that the situation and outlook reports are marketing reports. They are rich sources of the stuff all of us need to do the job in marketing information.

Regulatory and Service Programs

I shall only touch lightly upon regulatory and service information. But these are toc important to agriculture to omit from discussion.

I shall say only that I often wonder how well -- and even whether -- the general public understands the scope and purposes of the various regulatory programs in marketing.

What about inspection and grading? And market news? Are we--meaning Federal and State people together--making it clear enough, and to enough people, that these services are inescapably essential if farm products are to be marketed economically to buyers in distant markets far removed from the production areas?

In AMS, we administer a number of regulatory and service programs: marketing orders for milk and certain crops, designed to assure orderly marketing; licensing of dealers who handle farm products in interstate marketing channels to protect farmers from dishonest practices in distant markets; and licensing of warehouses for several major commodities. AMS also administers for USDA the Direct Distribution Program, in which the States distribute surplus foods to the needy; the Plentiful Foods Promotion Program, the Special Milk Program, and the School Lunch Program. All of these are marketing programs. And all are part of the Federal-State service programs in agricultural marketing.

Marketing Research

The final phase of marketing information--of marketing data--I shall discuss is in the area of marketing research.

When the Congress adopted the Agricultural Marketing Act of 1946, it opened a great new door to progress in agriculture, and in the marketing of farm products. It was legislatively recognized that much of agriculture's problems involved marketing. Previously, research had concentrated mostly on how to make two things grow where only one had grown before--with but little regard to the marketing side of the picture. But the Agricultural Marketing Act at last brought recognition to the fact that we must, in the end, find markets for America's farm abundance.

Under this Act, a great new marketing research program has been launched, together with a considerable realignment of programs to improve and service agricultural marketing. This new research program is proceeding apace, both in the Department of Agriculture and in the Land Grant Colleges.

In the Agricultural Marketing Service, dozens of research reports in marketing are being issued every month--research ranging from reports on more efficient layout for cotton warehouses to more economical packaging materials and methods. The research program is, within the marketing field, inclusive of almost everything.

Perhaps I should explain that the marketing research program is divided into four main groupings: (1) Transportation and facilities--where the research is on finding better ways of handling, transporting, and merchandizing farm products; (2) biological sciences--which seeks to improve and maintain the quality of farm products between the farm and the consumer; (3) market development--which seeks to develop new markets and expand existing ones through research into consumer buying habits, consumer preferences, promotion techniques, and other developmental means; and (4) market organization and costs--which studies marketing costs and marketing structure, with a view to locating inefficiencies within the marketing system.

And this work is paying off in good cold dollars, as well as in many ways not measurable in dollar terms. A partial count of the dollar savings arising from this work in the past five years shows actual and readily potential savings of well over 25 million dollars per year in marketing costs--which is several times the annual AMS appropriation for this research.

The new marketing data arising from marketing research in the Department is another great and rich source of informational materials on marketing.

Why is it that the retail cost of eggs in Washington, D. C., is over double the price farmers receive in Minnesota? A marketing research report gives a detailed breakdown on the marketing charges and practices involved--aiding materially in public understanding of agricultural marketing problems.

Why did the recent rise in farm prices result in an immediate similar rise in retail prices of many foods--although farmers' prices on the average make up only 40 percent of the prices consumers pay? Marketing research has shown us that the explanation lay in marketing costs, which had continued to rise during the period when farm prices were reduced--and that the rising marketing costs had obscured the reduction in farm prices.

What is the best way to load watermelons into a freight car? Marketing research has found that long type melons should be loaded with sides of the melons pointing to front and back of the car--not sidewise to the car, as previously. As a result, a 25-percent reduction in applicable freight rates on melons shipped from points in the southeast to points south of the Potomac and Ohio Rivers has been granted on those shipped the new way.

What are the advantages of new and modern terminal market facilities in big cities, to replace old and inefficient ones? A recent marketing research report concluded that the savings in marketing costs would run to several million dollars per year in the case of Philadelphia--and the new market is already under construction there.

And so it goes. Research is finding the proper temperatures at which to store tomatoes and other commodities--bringing substantial savings. New box liners for apples, new methods of storage and stacking and handling, new types of consumer packaging, and actual field testing of the results of promotional advertising are subjects of this research. And numerous reports are published on consumer reactions and preferences relating to foods, juices, cotton, wool, and other agricultural products.

The results of all these studies are finding their way into the uses expected, and into the hands of many users.

In these Marketing Research Reports is a great wealth of information useful to marketing information people--because it is information which marketers need and want.

It is my hope that each of you will keep fully abreast of this type of information as it increases and expands in the future, and that you and your Department will continue to help in getting it into the hands of those who can use it most effectively in the marketing of farm products. In view of your own daily and close contacts with the many different kinds of marketing people, your opportunities for this seems most enviable.

And now in closing, by way of summary, I have pointed out a wide range of statistical, economic analysis, service, and marketing research data which are available to us as useful tools for our marketing information work. These tools are essential to doing the great task before us.

Like any other tools, of course, they will and can be useful to us only to the extent that we actually put them to use--and to the extent that we improve our skills in the use of them. That is the challenge of today and tomorrow to marketing information workers throughout agriculture.

CONCLUSIONS AND RECOMMENDATIONS

On publicizing marketing information

Marketing service work is an action program designed to cause producers, distributors and consumers to make changes in their methods of producing, distributing, and purchasing farm products. These changes can be brought about quicker, if the work is supported by the right kinds of publicity.

There is a great need to do a better job of publicizing our marketing service programs so that the general public, as well as specialized groups, will be familiar with these programs, and with the sponsoring agencies.

Experienced publicity specialists are necessary for effective publicity programs.

There is a need to acquaint the public with the full scope and nature of the work of the State departments of agriculture, and to dissipate the notion that they are concerned only with regulatory work.

State departments of agriculture need to familiarize themselves with all marketing information available from AMS and to study ways and means of making better use of this information. They need also to acquaint themselves with the entire structure of news dissemination, and to cultivate better relationships between themselves and representatives of wire services, daily and weekly newspapers, radio, and television.

All information and publicity materials should be prepared in plain and clear language that can easily be understood at all levels.

The use of State brands and trademarks is steadily increasing. There should be some study made of problems that may arise in recognition of this as a factor in market reporting and in market information.

FUNCTION OF AN ADVERTISING AGENCY IN PROMOTING SALES OF FARM PRODUCTS

Alden R. Grimes
Campbell-Mithun, Inc.

When you're in my business and are invited to talk about the role of advertising agencies in promoting sales of farm products, there is a temptation to select favorable case histories to "prove" the value of your service.

But there is very little purpose served by such a presentation. It would only add to the confusion of claim and counterclaim as to the value of advertising in your marketing situation. It could easily be more misleading than helpful to those of you faced with the question of what advertising can and cannot do to solve agricultural marketing problems.

Let's, therefore, spend the next 20 minutes talking a little common sense about advertising. Let's put it in its proper perspective as one of a variety of marketing tools available to us. Let's recognize that it is not advertising, but the use made of advertising which determines its economic contribution; that there can be no one "right" advertising medium any more than there can be one hat size to fit all customers.

Let me encourage each of you to evaluate advertising in terms of your own marketing needs; to use your own common sense to discount the glib generalities which are being advanced by both the unqualified proponents and opponents of advertising.

For the sake of brief discussion, let's confine ourselves to three basic questions:

1. Should producers spend money to advertise farm commodities?
2. What can an advertising agency contribute in defining and achieving our marketing objectives?
3. How should we evaluate the sales effectiveness of advertising of farm commodities?

1. The whole idea that producers must assume marketing responsibility is a relatively new and radical thought in agriculture.

Traditionally, our whole agricultural economy has been production rather than marketing oriented. Our objectives have been to gear supply to demand, to protect the producer's income in periods of surplus supply, to control production by various means in an attempt to restore a balance between supply and demand, to focus our attention on improving our raw product almost without regard to consumers' desires or ability to perceive the improvement.

We considered demand only in terms of rigid economic theory. We proved to our satisfaction that the only significant influence on demand for farm commodities was price dictated by supply or artificial controls.

And the farmer looked upon the local creamery, elevator, or processing plant as his market. Once he'd sold his commodity, he left the responsibility of processing and further marketing to others.

As a result of this primary concern over the years with production problems, our lack of knowledge of consumers is appalling. We have only scanty information on their product desires. Even our consumption statistics are primarily derived from product disappearance data rather than measurement of the consumer market. We have almost no knowledge of the potential market for our commodities except as we relate consumption rates to population increases.

But markets are minds -- not population statistics.

People today buy products to satisfy desires rather than needs. It's more frequently a matter of what they read into the product in terms of its ability to satisfy desires than it is the physical nature of a product which dictates purchases.

And markets are minds -- not stomachs or nutritional needs.

The capacity of the human stomach has little to do with the marketing opportunity for our farm-produced foods. Despite the nutritional values of milk, and citrus juices, the social and psychological appeals of coffee and soft drinks have resulted in a phenomenal increase in the total consumption of liquids. In the case of grains, we are concentrating bulk by converting feed to meat product. Similar concentration and conversion opportunities for other food commodities minimize the importance of stomach capacity.

And markets are minds -- not pocketbooks.

The idea that our market for farm products must bear any direct relationship to disposable income is an invalid hypothesis. We have only to look at the overwhelming evidence that people buy what they want. There is no question of this when it comes to buying a new TV set, a new car, products which offer social or psychological values such as prestige or status, convenience items of all types including foods with built-in maid service, new products and new product forms. Such purchases inevitably demand that the consumer cut back on the quality or volume of other products purchased--products for which there is not as compelling a desire. And, gentlemen, our farm commodities suffer all too frequently in such circumstances because of our failure to capture an important place in the consumer's mind.

I'm sure that no one will debate the need of promoting farm products in the light of this existing competitive market situation. It is obvious that there must be communication with the consumer so that she will select our specific product rather than a substitute--or a totally unrelated item which competes for disposable income.

But the question is: "Should producers spend money to advertise farm products?"

And the corrolary question is "Doesn't the primary responsibility for such promotion rest with the processors and distributors rather than the producers?"

This "let George do it" attitude is one of the greatest dangers facing agriculture today.

Because "George" isn't as worried about your market as he once was.

Let's look at some specific examples of what's happening:

You wheat producers who count on the flour mills to market your product: Have you looked at their sales lately? They're now deriving a constantly increasing share of their business from nonwheat items. They have recently appointed company officers to search for new products which will permit them to diversify right out of the milling business into a general foods type of business. How aggressively do you think they will continue to promote wheat products? Would it surprise you to learn that the promotional budgets for the major brands of flour have been cut in half in the last 10 years?

You dairy producers who look to the major processors: Have you noticed the diversification which has taken place in their product lines in the last few years? You'll find them marketing margarine, jams and jellies, marshmallows, and a host of other items which lessen their reliance on the markets for your milk.

And, if you dairy-producing States aren't too concerned about that sort of diversification, I'd suggest you look at what's happening to your local dairies. Over one-third of them across the country are now selling and promoting margarine because it offers a better profit margin than butter. Last year, one of the largest dairies in the East accepted a marketing award for its sales success in promoting -- not fluid milk -- but orange juice.

All of you concerned with the food market can't help but be aware of the increasing competition for consumer attention in the supermarkets across the country, the squeeze on shelf and dairy case space.

Last year there were over 6,000 new items offered to food stores -- or an average of 20 new items per working day. The average store bought one out of every four such items offered. For every eight new items stocked, five old products were dropped from distribution.

Did one of your products get squeezed into smaller space where it's less likely to be seen and purchased? Did you lose distribution on an unpromoted item such as sour cream, a particular variety or package size of one of your fruits or vegetables? Did they cut down on the space for cheese in order to make room for some new refrigerated biscuits?

Who, gentlemen, is protecting your consumer market?

Can you name any major processor or distributor of your farm commodity who is as reliant on its sales for profits as that same company was even five years ago?

It's time that we look beyond our farm fence. We must recognize that our markets are the ultimate consumers--not the local creamery operators. We must realize that our product markets are of less importance to processors and distributors as diversification increases.

We must face up to the absolute necessity of producer-financed promotion if we are to maintain and expand our markets.

We must invest in communicating our product benefits to the consumer to insure our markets just as we invest in fire or tornado insurance to protect our investment in buildings, livestock, and equipment.

But, with the same breath that I point out the urgent need of producer-financed promotion, let me urge that you *not* rush into advertising.

Advertising is not a cure-all for our marketing problems.

Its function is primarily restricted to the *mass communication of ideas*.

Its success, therefore, depends not alone upon its ability to communicate, but also upon the *power of the idea* communicated.

No reasonable amount of advertising can overcome serious deficiencies in the product advertised, its packaging or pricing, its distribution, its competitive situation.

And the idea which is communicated by advertising must stem from one or more of these other elements -- preferably from the product itself.

If product, package, price, distribution, and competitive factors are favorable, even mediocre advertising can appear deceivingly successful.

But, if any of these factors individually or in combination exert negative pressure on sales or weaken the power of the idea being communicated, even an outstandingly successful campaign may do little more than slow the loss of sales.

It is obvious, therefore, that any advertising plan must be an outgrowth of a thorough marketing analysis and statement of specific marketing objectives for the individual product.

It is also obviously desirable that any weaknesses in other elements of the marketing situation be corrected if possible *before* advertising is undertaken if optimal results are to be achieved.

If you are contemplating producer-financed advertising, then I would suggest that there can be only one broad marketing objective: To increase producers' profits from the sale of farm commodities.

Within this framework, the marketing objectives for individual products will vary greatly. It is quite possible, as an example, that no promotional investment should be made in certain products in order that the available budget may be concentrated behind other products affording greater total growth and profit potentials.

It should also be recognized that it is not always economically feasible to attempt to expand the market for a given product. If the product fails to meet consumer desires or is in poor distribution, it is obvious that these deficiencies must be corrected before any investment is made in expanding the market.

Market expansion of one product may also reduce the opportunity for another product which affords greater profit to the same producer. Unless the growth potential for the first product is great enough to produce greater profit from the combined sale of the two products, it would be economic suicide to promote the low-profit item.

It must be recognized, however, that various segments of agriculture cannot avoid competing with one another. While it might be argued that citrus juice people shouldn't compete with milk for the breakfast beverage market, it would be shortsighted to restrict marketing objectives or promotional efforts on these grounds. In the vacuum of no promotional effort, the consumer dollars which would come to both of these segments of agriculture would likely be lost to coffee, tea, or some totally unrelated product. The debate of competitive waste within agriculture is, therefore, purely academic in terms of practical marketing considerations.

2. What can an advertising agency contribute in defining and achieving our marketing objectives?

The function of an advertising agency in promoting sales of farm products is, of necessity, an outgrowth of the marketing objectives for the specific product being promoted.

If we accept increasing profits as our marketing goal, then it becomes the function of the agency to implement this effort within its area of responsibility--mass communication.

Initially, this calls for participating as a business partner in its relations with the client organization. It must have full access to all the marketing intelligence available in the client organization. It must know everything you know -- good or bad -- about the specific farm product at every level of marketing from production to ultimate consumption.

It must know the product's possibilities -- and its problems -- as you see them.

And it must know fully as much about every competitive product.

The knowledge must be so complete that it is possible for the agency to enumerate the specific problems which the product faces.

The statement of these problems must be sufficiently complete so that specific advertising objectives can be stated in writing and mutually agreed upon before any promotional plans are drawn up.

In these initial efforts to define objectives, a competent agency can make a distinct contribution based on its marketing experience with similar products, distribution channels, and consumer communication.

It should have the sufficient detachment and objectivity to question elements in the marketing situation which may have been overlooked or ignored by people immersed in the particular commodity area or unaware of competitive marketing procedures.

Finally, to this body of basic marketing knowledge the agency should be qualified to add creative insight and imagination to arrive at a variety of approaches to accomplish the advertising objectives. And it should be prepared to research the alternative appeals so that favorable consumer action can be anticipated within the available budget.

Your agency should also be competent to recommend action in all feasible forms of communication -- not only the large-circulation paid-advertising media, but also in publicity media. It will never propose placing advertising in print or broadcast media without also proposing what should be done to follow-through in terms of trade contacts, merchandising efforts, and materials.

Contrary to a lot of well-intentioned but unqualified evaluation of advertising media by people outside of our business, you'll rarely find an agency which concentrates its communication in a single medium. For the truth is that television may be the most efficient or "right" medium to communicate a particular type of sales message to the best prospects for one product, but newspapers, radio, or even sky-writing may be better suited to another product's needs and competitive marketing situation.

3. How should we evaluate the sales effectiveness of advertising of farm commodities?

The simple but unfortunate truth is that we don't yet have the knowledge and research tools to evaluate advertising sales effectiveness.

While there have been many studies published which purport to measure sales effectiveness, the bulk of these are superficial approaches which totally ignore critical variables present in the marketing situation.

Let me caution you about just a few such approaches which may prove dangerously misleading as you decide on advertising matters.

> Tests which employ so-called "control cities" as a means of evaluation are perhaps the most misleading of all. In such tests, in addition to biasing influences resulting from differences in population characteristics, product knowledge, and use patterns, economic conditions, distribution achieved for test product, and a host of other factors, you also run the risk that temperature, weather, civic events, and many other differences can easily affect sales more than the advertising being tested.
>
> Studies which compare sales during the test period with the same period a year ago are frequently published without qualification. The authors conveniently ignore possible sales influence exerted by changes in product, package, pricing, distribution, population, economic conditions, competitive conditions, and a hundred or more other variables. Again, these factors may easily outweigh the effect of advertising on sales.

But the studies which ignore basic product sales trends probably take the prize. The trick here is to watch for a rising sales curve and then rush in with advertising. You're then prepared to make wonderfully extravagant claims for the advertising. Or, conversely, if you want to prove how ineffective advertising is, you advertise in a period when the sales curve is dropping sharply. At best, advertising probably won't much more than hold the market or retard the declining sales trend. The odds against expanding the market in the face of such a trend are so greatly in your favor that you just can't fail to prove how ineffective it is.

In short, let me say that I can guarantee to make a millionaire out of the man who can honestly measure the sales effectiveness of advertising. The need for such measurement is critical. But the complete impossibility of isolating all the variables in the marketplace and assigning values to these variables means that it will be quite a few years before we have any valid studies.

Our greatest hope is that the humanly impossible task of studying the simultaneous interaction of these variables may be programed into an electronic brain which will provide us with a sound research design.

On the positive side, however, we are making progress in refining some of the methods of measuring advertising per se -- its ability to communicate.

In addition to the development of several reasonably sound techniques for measuring the size of advertising audiences, much progress has been made in evaluating advertising in terms of what is recalled after exposure; in terms of the meaningfulness of this recalled message. While this latter procedure admittedly has many shortcomings, it has practical value in measuring attitude changes produced by advertising; in selecting between alternative advertising approaches.

Today, then, determining the favorable predisposition of a consumer toward purchase of a product is as close as our techniques permit us to come in measuring advertising's sales effectiveness.

But perhaps the greatest evidence of the sales effectiveness of advertising is not contained in such research studies, but rather in the fiscal records of American business. For this year, almost $11 billion will be spent to advertise our country's products and services.

In summary, let me make just three points:

1. As the processors and distributors of our individual farm products become less dependent on any single raw commodity it is becoming imperative that producers increase their promotional expenditures to protect their product markets.

2. Since our share of the total market is directly dependent upon our share of the consumer's mind, the employment of marketing and communication skills of advertising agencies is essential to successful promotion of farm product sales.

3. There is no known way to prove statistically the precise contribution of advertising to sales and profits, but American business is displaying its recognition of advertising's value by investing almost $11 billion in the use of this marketing tool. It's time that those of us interested in selling farm products recognize that, just as we have begun to use publicity to carry our product message to the public, we must now look to the use of the even more powerful communication and marketing tool, advertising.

OBTAINING THE COOPERATION OF INFORMATIONAL MEDIA IN CONDUCTING PROMOTIONAL PROGRAMS

John L. Matheson
New York Department of Agriculture and Markets

There are many areas of cooperation that one can speak of in relation to informational media. But when you are confronted with the problem of promoting a product and have no consequential amount of money to use, I interpret the term "cooperation" to mean the acquisition of free time and free space.

I have known promotion men who have had trouble getting the cooperation of informational media, even when money was available. This has not been one of my particular problems--I don't have to argue space fees, or fight for discounts.

In our section, we have information to give. We tailor it to fit the needs of the media we are dealing with, and we are constantly available to fill space when newspapers, magazines, and radio and TV stations are out on a limb for material.

Don't mistake the fact that we are neophytes in this promotion game, and we don't have a magic formula for sound relations with informational outlets--but we feel that we have information that the public craves, and perhaps newspapers and radio stations realize this, even more than we do.

Before I discuss our relations with informational media and how we developed the field of cooperation--giving and receiving--I'd like to take a minute to emphasize the importance of cooperation within our own promotional organizations. By this I don't mean cooperation in its normal sense, because supposedly all of our organizations are composed of intelligent men, all rowing in the same direction -- the promotion of agriculture and its commodities. But with all our intelligence and experience, too often this information is hoarded within the promotion section. Instead, we should give birth to these ideas and this knowledge through informational media to the general public, and in a language that the public can absorb with ease.

It is only a pleasant coincidence that marketing specialists may also be proficient editors, speech writers, and television and radio production specialists. So we find that in our own sections we have competent personnel to present and interpret our specialized findings and promotional ideas in the language of the general consuming public--a specialized language in itself.

With this thought in mind, it is imperative that we channel this information to these men who can handle it, keeping in mind, of course, that our publicity men are not necessarily marketing specialists and that our first step in cooperation and understanding begins right here in our own shop.

But now let's talk about obtaining cooperation of news media outside our own departments.

Newspaper Cooperation

Newspapers are perhaps most receptive to our promotional material, but, as with any written work that these people receive--informational or promotional--approach, quality, and timeliness are the determining factors for space allocation and frequency of use.

It is not difficult to have material published, but I feel that if we have a story important enough to tell, then we should do the best possible job of telling it right. Multiple interpretations can often change the meaning of a story and do harm, rather than the good that was the intent in original text.

In general, the trade press and weekly papers don't have the time to edit and rewrite our material. Instead of rewriting, they cut lines and paragraphs to fit space and conserve on expensive manpower. Much to our displeasure--but it is not the fault of the publication--they sometimes cut the meat from our story, or even the entire story itself.

On the other hand, as we do in our section--or try to do when practical--we study the length of articles the particular publication uses, the style they use, and the type of information that they have a thirst for. With these things in mind, it is almost impractical for them not to use material sent.

Unquestionably, it is difficult to have something timely and sparkling for every edition. But in our case, we dig up material that we can send them for use at their discretion. Newspapers have to have filler material, and if New York agriculture is mentioned in the filler, everyone is happy.

I feel that, in moderation, this is a good idea. We don't want to dump a lot of trash, but there is a happy medium of give and take. And as I said, although we know the quality that newspapers want, we are still experimenting with the quantity of material they will take. We'd be glad to send more, but fear that this can be overdone.

In other areas, we are certainly an asset to newspapers, and I would like to cite market news as a prime example. This information is in demand and we in New York State have been fortunate to be a testing ground for experimentation in some virgin fields of market reporting.

Market reporters are craftsmen in this specialized journalistic field, and through the years they have developed a concise language of reporting this highly perishable information, although, as was brought out in yesterday's meeting, they still need to do a lot of work in perfecting a completely understandable report.

In addition to the conventional market report, we in New York have elaborated and ground out a specialized weekly report, in the consumer's language, of "better buys." This report is in great demand by newspapers especially for the food pages. It is also easily tailored to support promotion campaigns and can noticeably affect consumers' weekly purchases, especially during the canning season.

Although in New York we have been blessed with numerous quality crops, there are a few seasons of the year when our agricultural cupboard is relatively scant on perishables and, at these times, we give a boost to out-of-State commodities that are available.

We all realize the tremendous importance of the newspaper in our promotional efforts. No doubt about it, it is essential. In our State, we have been treated in excellent fashion by the press. And we always try to show our appreciation for their gracious cooperation. While on this note, I might mention that everyone here realizes the importance of the press--but don't keep that a secret. When we have been treated especailly kindly during a promotional campaign, large or small, we take time to let the editor know of this appreciation. On a somewhat selfish note, I might add that copy immediately following these letters has received even better attention.

Magazines

Although magazines are nearly as important as the newspaper as an outlet for promotional material in writing, I shall not speak at great length on this subject. The bulk of my talk in this field would be in wonderment at how great an outlet this field may be. I know that many of you in this room may be better qualified than I to give an adequate opinion of magazine outlets.

On several occasions, we have worked through magazines, and coverage and cooperation have been excellent, especially through the trade magazines. The most important finding here has been that magazines, like newspapers, are searching for material. They are somewhat more discriminating and material must be presented in a professional manner. The residual effect of information sent through magazines is greater than that through any other medium, but promotional material must be subtle and interesting.

Radio

The market reports that I mentioned previously were perhaps our "foot in the door" for radio time and, again, these reports were carefully tailored to fit the needs of radio announcers. Radio stations wanted this material, but our market reporters did not merely throw the information at them; a radio format was worked out to make the market report appealing and useful. And it has paid off, especially for us in the promotion section.

Radio is exciting and forceful in various promotion campaigns. Our personnel enjoy radio. The vast coverage afforded by radio gives one an immediate sense of accomplishment.

Up to this time--and we are but youngsters--our radio time has been dedicated to farm programs with a 10-, 15-, or 20-minute format. Presentations have covered various topics, from the working of the Department in general to the functions of divisions and bureaus within the Department. During promotional campaigns, we have requested that our talks be centered around the particular commodities being promoted. During the recent National Apple Week campaign, we were asked to fill a 15-minute slot over one of the local stations and, as is our policy, we gobbled up the chance. We devoted the 15 minutes to the taste-tingling New York apples, emphasizing their excellent quality and uses for the various varieties.

The reception to the program was excellent, but an even more impressive fact was that the station's disk jockeys were plugging apples every chance they had after our program. We were bewildered, but pleased, until I happened to talk across the fence with my neighbor, an employee of the station.

It happened that a box of apples was left at the station, free for the taking--a great incentive to promote. And how much time could you go out and buy for the price of an apple.

We have never requested radio time. We have been solicited, and presently feel that we've had our hands full with the time we have been allotted. As we grow and learn, I think that we will expand in this field and expect that, with little difficulty, we can find ample radio time available in public service slots where we can just about name our own topics and program format.

Television

The domain of television--exciting, promotionally invaluable, and expensive--is an area where agriculture can shine brilliantly. I say brilliantly because television surveys have shown that agricultural ratings on public service programs have continually surpassed other types of public service programing--not in the class to receive an Emmy,by any means, but a rating that enjoys favor among television producers.

To bear out this thought, we have recently extended our Sunday half-hour slot for a six-month period, at the request of the station.

The request was not accidental. It was the result of extensive planning and cooperation. Our guide to what we feel has been success in obtaining air time on television has been our uncomplaining availability. We know our promotion material is not in such great demand that we can afford to be above the call of a director in distress. We take every minute of time that we have been allowed, and there is always a steady supply of material, so that with a half day's notice we can put on a 15-minute or half-hour show.

The Buffalo station has been most cooperative and it will be our letter of introduction to other stations in New York State. How much we can handle we don't know, but we have been able to carry the load so far. Up to this point, we have been able to fill all orders from the experience and knowledge that have come with years of working experience.

I must also congratulate the television help at this station, for they have been able to put our nonprofessional performers at ease before the camera, and this in part is why we have been able to put a natural program on the air.

I have elaborated on the ease of television programing not to confuse you into thinking that you can go into this TV field in a slipshod manner, but to emphasize the fact that competent and conscientious promotional personnel can handle these situations. There is no great stage fright in television, and, once this erroneous mental picture of fear has been erased, the medium of television can be one of our major outlets of promotional information.

Motion Pictures

Actually, in New York State we have not even skimmed the surface in the important informational field of motion pictures. We certainly realize the importance of film in the overall promotional picture, but have not yet obtained the technical manpower to carry out a proficient motion picture project. In the not-too-distant future, I hope that we can plunge into motion pictures in a fashion that this medium deserves.

As a matter of fact, right now it would fit very nicely into our overall philosophy of extended cooperation, if we just had a film library and taped radio talks, as a service for television and radio, to complete our principle of being Johnnie-on-the-spot.

After covering briefly our five major outlets for promotional material to the public--radio, TV, motion pictures, magazines, and newspapers--I hope I have left a definite undertone of the important factor that carries along through all these five media: Cooperation, and more cooperation, is the easiest way to receive cooperation.

With informational media, as you can see, it is especially a give-and-receive proposition. But a better give-and-take deal you couldn't find.

Occasionally, various news agencies ask for assistance. They seldom ask twice. They can turn to many other sources. And from us they merely want information, the very thing we have to offer. But it is important to offer it when they need the material.

As I said, a better give-and-take arrangement you cannot easily find, for the thing we are asked to give is a fair trade for the valuable free time and space that we receive.

EFFECTIVENESS OF VARIOUS TYPES OF PUBLICITY MATERIALS IN CONDUCTING PROMOTIONS

John L. Rainey
Pennsylvania Department of Agriculture

To discuss the effectiveness of different types of publicity one must make the basic assumption that publicity can be effective. I make this assumption freely but it is not one that is shared by everyone, particularly those who live farthest from it. Publicity is probably overrated by those in entertainment, sports, and politics who exist primarily on it. And it tends to be underrated by those who are seldom involved in it. We deal primarily with this latter group of people, and for this reason it is essential that we develop more information about publicity.

I would like to tell you about our recent experience in this direction in Pennsylvania. Our project was not revolutionary, but it has served to confirm some theories and to give us guides in using different types of publicity in promotional activities. It is difficult to evaluate effective publicity. Our project--the test introduction and promotion of Pennsylvania Certified Eggs in the city of York, Pa.--was an attempt to establish some basic data in this field.

But first let us define publicity for the purposes of our discussion. Let us think of publicity as all informational forms of the printed and spoken word and of pictures, but not including the paid use of media. This would eliminate from our discussion -- and separate as advertising -- paid space in daily newspapers, magazines, and other periodicals; miscellaneous publications; radio, television, billboards, car cards, and even direct mail advertising. We would, however, retain within our definition of publicity paid demonstrations and point-of-sale materials, both of which are admittedly borderline cases, and no purist in public relations would agree with me on this classification. Publicity we can think of as an informational activity rather than a sales activity, but even here the division line is hazy. In some of our promotional activities a part of the mission of publicity may be directly to sell, and certainly publicity in the overall sense is an attempt to "sell" an idea or a service or a person or a product.

There are many types of publicity and of advertising. Two quite different fields, for instance, are consumer publicity and trade publicity. Even if we arbitrarily define publicity we still have trouble with determining effectiveness. In the field of advertising there are great and continuing disputes about effectiveness. Individual radio stations, the networks, newspapers, magazines, and other publications all have very convincing stories -- to tell potential advertisers -- about how their media is best. It's simply a matter of which set of statistics one wants to use -- and which statistics one wants to disregard. Newspaper clipping services and radio reports make at least a tacit claim of being a measure of effectiveness. The best publicity information in the world is of no value if it fails to appear in print or on the air. But the fact that it appeared in print does not necessarily mean that it was read, or if it was read that it was understood, or if it was understood that anyone was influenced by it. Tests have been conducted to determine comprehension of pieces that appeared in print and there are outstanding examples of publicity achieving an overwhelming response: a notice that a popular entertainer will appear at a given spot has frequently stampeded great numbers of people to that spot; the mention of an"attractive" common stock on a radio broadcast has produced sensational gyrations on the stock market immediately.

I believe we can establish that publicity can be effective. Anyone in the publicity business has, I am sure, had those disappointing moments when he found that a particular effort was uncomfortably ineffective. In attempting to run a promotional program or in assisting a commodity group in our State in running its program, we frequently find that we are working with extremely limited budgets. Knowing something about the effectiveness of different types of publicity can be quite important if we are to make best use of the money, time, and personnel that are available.

There are many opportunities for publicity in our work and the principal point that I wish to make is that we should avoid dependence on any one or two outlets for our efforts. We tried a number of publicity techniques -- not all of the available techniques by any means, but as many as our manpower would permit-- in our certified egg program in York. One of the major surprises to me was that we obtained more response from some pamphlets we printed -- primarily one sent as a direct mail piece -- than we did from all the radio, television, and newspaper publicity combined.

But first let me describe briefly how our test operated, and then tell you what our preliminary findings have been. Having recently begun State certification of eggs -- grading under State supervision -- we decided to try a test introduction of the cartoned product and the promotion of the product in a joint project. These were the two major questions:

(1) Can a State label or seal add sales appeal to a product?

(2) Can short-term promotions increase the sales of such a product?

There were also a number of other types of data we wanted to collect on consumer attitudes about the product -- where they buy it, and why; how often do they buy it; what is their understanding about grades and other identification, etc. Starting on June 16 last summer we ran the test in three 4-week periods. We chose the city of York in consultation with Penn State University because it was felt to be typical of Pennsylvania generally in income, occupations, national origins, number of retail stores, and other factors, plus being a city with a degree of isolation from other urban centers. Lancaster, Pa., a city some 25 miles away, was used as a control on the test.

We arranged with 28 stores to give us weekly sales figures and other data on eggs -- these included 14 chain outlets. During the first 4-week period we checked egg sales in the stores and also started our telephone survey, which I will mention in a minute. During the second 4-weeks certified eggs were put on sale in a selected group of the stores. A variety of systems was used. One of the chains went exclusively into certified eggs. Another had its own cartons packaged under the certified program and put both State seal cartons and non-State seal cartons on display side by side. Another chain put certified eggs in two of its outlets and kept two of its outlets as its own control. Results of sales were obtained during these 4 weeks. At the start of the third 4-week period we began an intensive 2-week promotional effort, sales results were continued and the telephone survey continued. Results are currently being analyzed by Penn State and we expect to return to York and and Lancaster for periodic checks to see what, if any, changes are occuring.

Approximately 3,200 telephone interviews were completed in the two cities to obtain information about the use of eggs -- and the other data which I will describe.

Five hundred persons in York were purposely telephoned during each of the three 4-week periods. Five hundred in Lancaster were called at the beginning of the test and repeated at the conclusion. "New people" were interviewed as the test progressed to obtain auxiliary data.

An attempt was made to use a wide variety of promotional and publicity techniques in order to demonstrate the role each has in a market expansion program. Highlights of the 2-week period included:

A 27-foot house trailer outfitted as mobile display booth.
20 different news releases for press, radio, and TV.
4 radio interview programs and 4 TV interviews.
22 public service announcements for broadcasters.

Visits to the trailer exhibit by Mayor Schiding, Secretary of Agriculture Henning, and the State and County Poultry Queens.

2 service club speeches.

Carton inserts in each carton.

350 copies of booklet on handling eggs, mailed to each food retailer in county - "How's Your Egg 'Cents'?"

20,000 copies of leaflet bag-stuffer: "Do You Know the Eggs You Buy?"

35,000 copies of "What Makes A Good Egg," color pamphlet mailed to each York home.

Publicized schedule of queen visits to retail stores.

Booklet "Eggs Serve You When You Serve Eggs" (from Poultry & Egg National Board) for queens to distribute in stores.

Store posters and signs from PENB, imprinted with "Buy Pennsylvania Certified Eggs."

Visitors to the mobile trailer which was parked in front of the courthouse were escorted through the exhibit and a count of 3,269 persons was made during the two-week period. Explanations of the certification program and demonstrations of egg candling were handled by State egg inspectors.

Because it is in part a measure of the effectiveness of the overall publicity, let me tell you first about the use-of-eggs figures and store sales figures by means of an index established for each of the three 4-week periods. Then I will tell you how we have started our evaluation of the publicity techniques employed.

The retail price of eggs got progressively higher in both cities as the test progressed and we felt this was the principal reason that the "average number of eggs used per household interviewed" decreased in Lancaster from our starting index of 100 to a closing index of 92.

In York during the three different periods, however, our index went from 100 to 96 and then back up over 99 during the promotion. Thus our figures for the average number of eggs used per household declined approximately 8 percent in Lancaster and less than 1 percent in York. Due to consumer buying habits in these communities, we learned that only about 20 percent of the eggs were purchased at retail stores. There are many eggs available on nearby farms, a large number of door-to-door hucksters operate in each community and there are well-patronized farmers' markets in both communities. We found in Lancaster that as the average number of eggs used decreased, the store sales also decreased similarly. But in York as we went from our starting base of 100, the total store sale of eggs rose 1.8 percent during the 4-week introduction of the certified egg, and they bounced up to an index of 108 during the promotion period. This means that while total egg sales were very slightly down in York, the egg sales in retail stores jumped up noticeably. The certified eggs were available only in retail stores.

By adjusting the data for York to the control measurements in Lancaster -- and again starting with an index of 100 -- the promotion period showed slightly more than 8 percent increase in the average number of eggs used over what would have been the theoretical level. And by the same method the total store sales of eggs in York increased during the promotion period 18 percent over the base period. We feel that the test was broad enough that we can isolate two major conclusions: (1) Consumer interest in the certified package was sufficient to increase sales, and (2) the promotional effort brought increased use of eggs, most of which was reflected by an increase in certified egg sales in the stores.

One of the questions asked during the telephone interviews was "How did you first hear of egg certification?" Of some 581 persons who were asked this question in York, approximately 47 percent had not heard of egg certification. Of those who had heard, slightly more than 1/3 (18.93 percent) said they had heard through the leaflets, and I would assume that a major source was the direct mail piece which went to each home. Another 9.8 percent said they read about egg certification in the newspaper, 3.9 percent heard about it only through the survey call, and 3.9 percent said they heard about it at our trailer exhibit. Despite a rather complete schedule of public service announcements, news broadcasts and interviews, I was surprised to find only 2.24 percent responding that radio was their first source of hearing about egg certification. The program on television was much less comprehensive and there only 0.52 percent responded. A third of one percent identified the counter displays as their first knowledge of egg certification and the same number heard about it through a minor variety of information. A total of 1.7 percent said they heard about it from another person. Seven percent of the people were able to identify two or more sources and these were largely persons who read the leaflet, saw it in the newspaper, and/or visited the trailer.

In order to see if the information about egg certification was leaking over to Lancaster and perhaps prejudicing some of the data there, we asked the same question in Lancaster. Of 457 persons who were questioned there, we found that about 5 percent said they had heard of egg certification and most of these said they read about it in the newspaper. We assume these few people were subscribers to one of the York newspapers or to the Harrisburg paper which picked up several of the stories.

By comparison with our degree of saturation in York -- our 53 percent -- a couple of years ago Penn State found it was able to reach 91 percent of the people in a somewhat smaller community during a month-long promotion concerned with their "Better Breakfast Program." Not only was their promotion more extended in time, but it had the added advantage of great effectiveness through demonstrations of nutrition in the schools. We are not at all unhappy, however, about reaching just 53 percent of the people in York. We feel the techniques were all satisfactory, with the possible exception of the very slight percentage which apparently noticed the point-of-sale materials.

There are many conclusions one can draw about the usefulness of a State seal and we expect to adapt our program as the analysis is completed by Penn State. To evaluate the effectiveness of the different types of publicity, the answer which became obvious to us is that many types are needed. Dependence on only one type or even two types is going to result in missing many of the people who could be reached. Only 7 percent of the people in York said they heard about this program from two or more of the methods we used. Thus we find that 46 percent of the people in York heard about certified eggs through only one of the various publicity techniques.

Before concluding I should mention one unexpected "effectiveness of publicity." In the course of contacting the Rotary Club of York to try to schedule a speech on certified eggs during the promotion period, I corresponded with the Rotary program chairman who, it turned out, was associated with a major dairy in York. Al Saylor eventually made the speech, and apparently it was a good one. In a matter of hours the dairy official was asking for help to line up a source of supply of certified eggs. Al arranged this and as soon as the mechanics could be put into operation the dairy started marketing certified eggs exclusively. They even took some of our promotional literature and reprinted it at their own expense. They feel they now have the kind of egg program they had needed and are enjoying a substantially higher volume in egg sales. I believe our experience with the dairy points out that it is difficult to anticipate effectiveness in publicity.

In conclusion I would like to stress that we need more data. If a commodity association has $500 or $700 to spend on a spot promotion we could do them a real service if we could show them where their efforts could be most productive and help them carry out that effort. Personally I am inclined to think that budgets must be much larger than they have been or promise to be in Pennsylvania if they are to be as effective in the consumer publicity field as in the dealer publicity field. But that is another story.

I appreciate the chance to describe what we are doing and will appreciate knowing about other information from other States.

CONCLUSIONS AND RECOMMENDATIONS

On publicity as a means of expanding market outlets

Advertising and promotional activities should be carried on by commodity and breed organizations, assisted where possible by State Departments of Agriculture.

Careful studies should be made before engaging in any paid advertising or promotion programs. These studies should include the objectives of such programs, the various advertising media available, and the possible results of such programs.

It is further suggested that those contemplating advertising programs confer with an advertising agency, consultant service, or similar council before final commitments are made for expending the advertising budget.

It is recommended that States continue to collaborate with the Plentiful Foods Program of the U. S. Department of Agriculture in their continuing efforts to expand outlets for farm products.

HOW PUBLICITY CAN AID IN BRINGING ABOUT THE ADOPTION OF MARKETING IMPROVEMENTS

William P. Charron
Maine Department of Agriculture

In Maine, publicity is utilized as an important part of our overall marketing and promotional programs. At every opportunity we endeavor to make full use of matter or information that may be spoken, written, printed, or otherwise expressed in order to focus the attention of the public on quality Maine products.

Gentlemen, a well-trained, skilled, publicity representative is worth his weight in gold.

He is an important member of the team that makes the whole program work smoothly. By working with the marketing specialists he is able to pick out such factors as human interest angles, success stories, and many other items that add materially to the program. These stories keep the product in the news a little longer and make more of the public conscious of it.

Whenever possible we have our staff of marketing specialists spend much time with our publicity personnel. By talking over their projects or telling about recent merchandising trips, they are making the publicity men more familiar with our program. It becomes much easier for them to talk and write about our work effectively. In time they are able to pick out newsworthy stories and promote our products indirectly. Many times these important news items would slip by us unnoticed because we are not watching for, or do not understand what is news and what isn't.

As you know, we have in operation a program of market service and promotion for Maine potatoes. To conduct this potato work and our various other projects such as poultry, milk, apples, beans, corn, maple syrup, and blueberries, we now have a staff of 14 male and 3 female marketing specialists. Whenever we are meeting and the fieldmen or women are going to report on their experiences and activities we invite the publicity representative to sit in. Here is where he is given a first hand opportunity to hear the specialists recite their own experiences.

In addition, well in advance of each special promotion or enterprise we advise the publicity man about our activities and plans. These data keep him informed and give him an opportunity to plan his work ahead and fit them into his schedule. In return he furnishes each marketing specialist with copies of all his publicity releases for his files in order to keep communications alive as well as to generate a continued interest.

An important phase of the program in which we believe we have been rather lax is publicity back to our industries and to the trade in order to stimulate them and bring about the adoption of marketing improvements. This type of publicity is of great importance. It is not an easy task, and should be a part of all programs.

In their work the marketing specialiststravel far and wide to many markets where they are able to observe modern merchandising practices such as good grading, modern packaging, up-to-date efficient handling, modern warehousing utilizing new efficient time saving methods, good retailer displays, and successful in-store promotions.

All these observations are of real value to any program but are absolutely worthless if they are kept in the marketing specialist's mind, or his file. He should recite his experiences at meetings where the publicity representatives are present and the material should be made available to them.

A good example of what we are discussing is as follows: A few years ago the Maine Experiment Station conducted some work on the washing of Maine potatoes which were graded and packaged into visible containers at the shipping point. Their results showed conclusively that Maines could be washed and that the product brought a premium in the market place.

However, in spite of all this work and the reports published by the researchers there was a definite reluctance on the part of our producers and shippers to wash, size, grade, and package their potatoes in visible containers.

Many releases, talks, and demonstrations were set up by the Experiment Station, Extension Service, and our Department, and after a while six or seven operators set up washers and were ready to go. All this progress was fine, but at this point we found that wholesalers, receivers, and many chain operators were saying "You shouldn't wash Maine potatoes, they will not keep," or something to that effect.

The Experiment Station had done its job well and now it was up to us to convince the trade that this "Gem," this beautiful washed, clean, well-graded, well-sized Maine potato would sell. We found that wholesalers weren't interested so we bypassed them and stocked the chains directly with the understanding that if the product didn't sell we would take the loss and remove the product from the stores. Of course, the Maines sold, even beyond our expectations and customers repeated their purchases often.

Here again publicity releases were sent out on how well the washed potatoes were selling and how the consumer enjoyed purchasing clean, well-graded, well-sized potatoes which she could see. Before long most all the chains were asking their buyers for washed Maines. It was hard work and good publicity releases were a great help in making the deal effective for us.

I would like to point out that this was when we began our program of market service and promotion, and since that time we have expanded to our present setup.

Another example of where publicity to the tradespeople was effective was when we conducted a series of demonstrations and schools on poultry cutting, packaging, and merchandising for Maine grocers. These schools were well publicized in advance, assuring us of a good attendance. As the sessions took place in the evenings, we arranged for our staff to put on demonstrations on television every afternoon in the city or town where the session was to be held. The specialists told their audiences that here was what their grocers were going to learn tonight and they should look for quality cut-up packaged Grade 'A' Maine chickens at their favorite stores. At all sessions the attendance was high and interest was keen, which made us all feel good. Best of all, however, was after the schools when we observed that some of the grocers had adopted the methods demonstrated for them by the specialists and that their sales were increasing at a rapid pace. It was gratifying to note that through good publicity and good demonstrations the demand for the cut-up packaged product increased so much that the processing plants began cutting up and packaging. Last season we abandoned our sessions as grocers are now able to obtain all their supplies either from wholesalers or processors.

Two summers ago we publicized the fact that two of our marketing specialists had attended a barbecuing school and were available to put on demonstrations and assist groups in setting up public chicken barbecues. At first we thought that if we had three or four interested groups we would be lucky. As it turned out the specialists were busy all summer and worked almost every weekend. Sales of Maine chicken were up and grocers were merchandising the product in split form for barbecuing. The next summer the demand for their services was even greater as they assisted in setting up 27 organizational barbecues besides their other departmental work. After one release in the "Poultryman" about their services, the Maine Department of Agriculture received requests for information from about every State in the Union and one of the specialists even furnished a Maine barbecue sauce recipe to President Eisenhower.

The specialists now attend meetings and advise groups, organizations, and others on how to prepare for and to set up a Maine Chicken Barbecue. They also furnish specifications and plans for construction of the equipment. At present more and more community groups are staging their own barbecues using their own equipment. The processors are cooperating with these groups by making split broilers available at all times.

The following are some of the publications which we utilize in publicizing our product and also in promoting the adoption of modern merchandising:

Potato Councillor
Produce News
The Packer
Super Market News
Food Field Reporter
Spudlight
Merchandising Institute
MPIA Yearbook
Poultryman
Poultry & Eggs
Potato Chipper
Broiler Industry
Turkey World
Neppco News
Weekly Digest
Weekly Papers
Poultry Digest
"House Organs"
(such as "Finast"
Food Marketing)
Dailies
Radio
T.V.
Films

I have listed some important points which I believe a publicity representative could follow and be of great assistance to the overall marketing program.

The publicity men should:

1. Keep informed of all projects undertaken by the department.

2. Analyze each project and select elements that should be developed for specific types of publicity:

    Trade
    Newspapers
    Radio
    Television
    Feature stories

3. Become familiar with the requirements of all media in order to target material that has best chance of being used.

4. Attend meetings at which field men recite their own experiences in the field so that they can develop human interest angles success stories, etc., gathered from their reports in the field.

5. If possible, prepare publicity material kit to precede each marketing enterprise.

6. Furnish copies of all publicity to each field man in order to keep communications alive as well as to inform and generate continued interest.

7. Gather file of copies of speeches given by various guests at meetings -- make excerpts pertinent to items of interest to fieldmen, etc.

8. Prepare story lines for radio or TV interviews in which the fieldmen participate.

9. Prepare and provide home page editors, radio and TV commentators with source material releases covering origins, basic facts, etc., relating to products.

Of course we realize that we are new in the use of publicity. It is a phase that most of us have had a tendency to neglect. Once we all have an opportunity to study and analyze its effectiveness, however, I am sure that we will all realize its importance to our programs and make more direct use of it.

SELLING YOUR MARKETING PROGRAM TO THE PUBLIC

Richard D. Chumney
Virginia Department of Agriculture and Immigration

Better coordination in the production and marketing of agricultural products is one way to increase the farmer's income in the face of rising costs. Our modern-day, rapidly changing, complex agricultural economy makes it mandatory that all of those engaged in the production and marketing of farm products keep up with the times. The American farmer is in a position to continue to make a profit and to provide "more and better food" to the consumer.

One of the big problems in coordinating the production and marketing of farm products is to get the right kind of product produced, and then have it prepared and merchandised in such a way that it will be in demand by the consumer. The answer is to produce for a particular market rather than produce simply to market.

State Departments of Agriculture, through their marketing divisions, can render a real service to agriculture by showing to those in the production of food and fiber the kinds of products that are in demand by the consumer. In our own Virginia Department of Agriculture, we feel that we have made some progress in this direction. Our marketing people try to keep everyone in the production and marketing of food and fiber aware of the likes and dislikes of the consumer. This is not accomplished through the efforts of any one individual, but through the efforts of a TEAM working towards the same goal.. "selling a marketing program to the public."

Those of you who have had any experience in commercial selling, well realize that it is not a simple task. Such is also true in the selling of a marketing program to the public. Selling involves many problems, but don't forget that a problem is only a question looking for an answer.

Of course, one of the big reasons for selling a marketing program is to make some desired improvements in marketing. To get this done, you must have the support of all of those involved in the production and marketing processes.

The selling of a marketing program to the public can be expressed in one word. NA -- IT -- CO. You won't find the word NAITCO in the dictionary, but I believe it represents the fundamental principles in successful selling.

We feel that our marketing people must be good salesmen. A salesman is just like an electric cord. He simply serves to connect his organization with a need.

The first letter of NAITCO is "N".

"N" is for need. One of the fundamental principles in selling anything is to first determine the need. Your marketing program will be successful if everyone involved feels that he is helping to fill a need. It is very satisfying to be a part of anything that is worthwhile.

We must remember that we are living in a highly competitive society with many needs. Our capitalistic system generates competition which exists not only among private firms and cooperative business organizations, but among individuals and agencies of government as well. It is this competition that has made this Nation great and has created the need for better marketing programs.

Unless you can determine a real need for a marketing program, it is useless to waste dollars and effort in attempting to carry one out. If you think there is a need for a particular marketing program in your State, be sure of this need before you start. A little time, effort, and dollars spent in the beginnin to determine the need can pay big dividends. We in Virginia feel this is a sound approach, and even then we can and do make mistakes. What we might have thought was a real need, just wasn't there.

On example we may cite of a real marketing need in Virginia is the marketing of Virginia cattle through special sales where they are graded and sized for sale. The sales are organized by local farmer organizations who make the basic decisions on sale consignments, rules, and regulations. This marketing program includes three elements: the special sale technique, packaging the product for consumer demand through grading, and securing farmer participation through a local sales organization. During the last 10-year period, from 1947 through 1957, 191,019 feeder calves have been sold in special sales in Virginia which have netted farmers $20,803,475; and 45,598 feeder yearling steers have been sold in special sales, netting farmers $6,367,881. During the past two years, graded fat cattle sales were organized which sold 1,981 head for $415,49

These figures do not include the 44,000 head of feeder calves and yearling steers that were sold in special sales this fall in Virginia. Specific results is "the proof of the pudding" in a market service program. "Selling the need" in Virginia special sales of livestock during the last ten years has netted farmers $27,586,855. The need for better organized and aggressive selling of livestock still continues.

The second letter of NAITCO is "A".

"A" is for atmosphere. After we have determined the need for a marketing program, then we must develop a clear concise plan to fulfill this need. For a plan to work, it must be in the right atmosphere. Oftentimes it isn't too difficult to plan, but many times it is difficult to work the plan. The atmosphere in which a marketing program exists could well determine its success or failure.

Our attitudes toward our marketing programs create the atmosphere in which we must carry out these programs. Our attitudes toward the people with whom we work, in farming;in industry, other State agencies, and in communications are most important. When we evaluate these attitudes objectively, we can soon determine whether or not we have the right atmosphere for a successful marketing program.

If our attitudes are bias toward any group with whom we work, a cold atmosphere is created. In such a climate a program is doomed to failure. If we are determined to win friends and influence people, we must create a warm receptive atmosphere; an atmosphere that infiltrates the people with whom we work. In this kind of atmosphere, we are off on the right approach toward selling a marketing program to the public. In such an atmosphere, everyone is headed in the right direction and pulling together as a team. All are striving for one goal, that of selling their program to the public so that it might pay dividends to those involved. We might say that creating and maintaining a proper atmosphere is simply "good public relations."

Our State legislatures are most important in the carrying out of a marketing program. The legislature doesn't operate the program, but it does pass the laws authorizing our programs and appropriates the funds to assist in financing. We must convince the legislature that the programs are necessary and do a good enough selling job to get the funds to put the programs in operation. When appearing before the legislature, the spokesman must be a real salesman. Not in the sense of the word of trying to put something over on someone, but in a way so as to appeal to logic and reason of the legislator. This person's attitude must be one of humbleness and his statements must be accurate and convincing in every way. He must create the right atmosphere in order to get the necessary appropriation.

Those of us in marketing divisions of State Departments of Agriculture occupy a strategic position in which we can take the initiative to bring about cooperative efforts on various commodity programs. Tc do this, we must be willing to share the limelight in such a way that our fellow workers in other cooperating groups will share part of the credit. We in the Virginia Department of Agriculture feel that we are just a cog in a big wheel, occupying a liaison position among the various cooperating groups between the producer and the consumer.

My previous example, citing the accomplishments of our livestock marketing work, would not have been possible had we not had a close "team approach" between the livestock marketing specialists at our State agricultural college and the marketing and grading personnel of our own Division of Markets. The Extension marketing specialists assisted in working with county agents in promoting and organizing special sales. Our grading service performed the actual grading of the livestock and assisted in the field selection of livestock to be consigned to the sales. This cooperative atmosphere presented a united front to the livestock industry which soon added another member to the team. This was the Executive Secretary of the Virginia Feeder Calf Associatio

Their responsibility included promoting sales, securing buyers, and assisting organizations to insure farmer participation. Yes, all of us have shared the limelight and the credit. In return, Virginia feeder calves have become famou from Virginia to Mississippi.

In occupying such a strategic and sensitive position, it is necessary that we become alert to all the techniques of cooperation and apply them wisely, diplomatically, and without pressure. When we do these things, thinking at all times of the job at hand and the welfare of others, the atmosphere that is created will be charged with good feeling and enthusiasm. This is a sound foundation on which to sell a marketing program to the public.

The third letter of the word NAITCO is "I".

"I" is for individual. The importance of the individual in selling a marketin program cannot be over emphasized. Individuals represent the building blocks of any program. Every marketing person is an individual with certain characteristics. It is important that we have the right individual in the right place at all times. It is important that this individual be selected on the basis of a man to do a particular job and not just a man to fill a job. We must employ and train individuals in marketing programs with creative abilit. They must be capable of thinking for themselves and exercising good judgment at all times.

If the individuals who head up the various programs are capable people, they, in turn, will employ good individuals to handle the program all along the line.

In Virginia, we have been blessed with individuals on our staff who have been dedicated to advancing the cause of better marketing of livestock. One of the individuals, Mr. C. P.McClaugherty, is attending this conference here today. For over 25 years, Mr. McClaugherty believed and was dedicated to the cause of grading and sorting livestock as a method of assisting farmers to secure a better price and to satisfy buyers. "Mr. Mac" also possessed an aptitude to pick men who were willing to work long hours and who were tall and large enoug to defend their decisions against all opposition. These graders not only grade feeder calves, yearling cattle, and fat cattle, but also grade 92 percent of the lambs sold in Virginia.

They have established a live swine grading program in southeastern Virginia, and only this year established a system of grading feeder pigs. This new venture of marketing feeder pigs through mixed ownership and on a grade basis at special sales, has already netted farmers in Eastern Virginia $20,000. More sales are planned for this year.

We have had equally capable individuals in our fruits and vegetables, grain, and egg marketing programs. An organization built upon individuals selected to do a particular job can build a successful marketing program in all of its phases from the producer to the consumer.

The fourth letter of NAITCO is "T".

"T" is for tell. The next logical step in selling anything after you have shown the need, created the right atmosphere, selected the right individuals, is to tell everyone involved in the marketing program all the details. Most people do not understand the process of marketing agricultural commodities, so it must be told in simple, easy to understand language in many ways. This means telling many people, many times, well in advance of their responsibilities in their particular part of the marketing program. They must be told in such a way that they will want to be a part of the team. Use as many means as possible to publicize your program. Certainly these would include the media of the press, radio, television, exhibits, demonstrations, personal contacts, and public speeches.

Great latitude is provided in marketing to use imagination in communicating the results of marketing programs. Individuals with fertile imaginations can accomplish a great deal toward developing market service programs. Imagination creates an idea. It is through imagination that we develop new and better techniques for reaching the masses. It is through this imagination that we can learn to communicate these results wherever we want them to go--to farm organizations, to the great retail distribution system, to customers, and to key individuals who are powerful in legislative appropriations. We, in Virginia, believe in an honest, straight forward approach of telling and selling our marketing programs to the public.

The fifth letter in the word NAITCO is "C".

"C" is for conservative. The conservative approach to any program is usually sound. We in the Virginia Department of Agriculture feel that if we have had any success in selling our marketing program, it has been through the conservative approach. Starting in a small way, and gradually building the program on a sound basis is a good way to not over extend yourself, become over enthusiastic, or to over sell yourself on a particular need; when actually the need does not exist. With the conservative approach, you can anticipate many of the pitfalls in your program, that if not seen in adequate time, could well spell "doom" to your efforts. The salesman who tries to create a "flash in the pan approach" is usually a one-stop salesman. He can sell his program a little better at first, but in the long run he will fail. Every sale must be tailormade to fit a particular need.

A good farmer is usually a conservative farmer. A good businessman, whether he operates a wholesale food establishment or a large retail distribution organization, is conservative, practical, and balanced. A good marketing program is a conservative program.

Consumers as a group are conservative people. They are shrewd shoppers for the best quality of food at reasonable prices. They want as much as possible for every dollar spent.

Our marketing programs must be built on a sound and conservative basis. The fees we charge must be reasonable, yet they must be adequate to cover all costs. The various grades and standards we use must be conservative, practical, and reasonable. A marketing program that is conservative in all of its aspects has a good chance of being successful. The best of people at the top of an organization cannot pull a marketing program through unless it is set up on a sound and conservative basis from bottom to top.

The last letter in the word NAITCO is "O".

"O" is for organizations. An individual cannot sell a program by himself. Groups of individuals make up organizations. Organizations are also involved in the selling of a program. Our marketing, advertising and promotion, chain store, and farm supply organizations are all involved in selling a marketing program to the public. A department of agriculture, regardless of how effective it might be, needs the full cooperation of all groups involved to get the job done.

An organization is like a long train pulled by a locomotive powerful enough to do the job. A well set-up organization is like a train with every car in its right place and each one destined to a location with a payload that is needed. The train leaves its base and every car is destined for some place enroute. Finally the last car is deposited where it belongs hundreds of miles away. To sell a marketing program requires a train of individuals and organizations; each connected properly; pulling together as a team, and each with a specific responsibility.

A vital part of one of these teams has been our feeder calf association. It is organized around our local sales and blended together on a statewide basis through a feeder calf cooperative association, thus providing the farmer an opportunity to have a voice in his own marketing program. The organization has a check-off system on each head sold through each sale. This money is used to employ an Executive Secretary. His job is to secure buyers by promoting the sales within the State and in the major cattle feeding areas. The local organizations establish rules and regulations and coordinate sale consignments. They have contributed immeasureably to the success of our feeder cattle venture. We see tangible evidence that farmer participation, through an organization, is essential to strengthen bargaining power in marketing activities. This is true in feeder calf sales, because the best organized sales, and the sales that possess the most interested and aggressive leadership, are those sales that bring the highest prices.

Our marketing programs within our departments of agriculture, must function smoothly and efficiently if they are to be successful from producer to consumer. In these days of more and more contracting and vertical integration in agriculture, more emphasis will be placed on developing strong marketing organizations.

Now we have used each letter in the word "NAITCO." But,in so doing, you have noticed that I have placed these words in such a way that the first letter of each word now spells the word A-C-T-I-O-N. Yes, the selling of any marketing program to the public involves a program of ACTION. It must be a program in which you are constantly striving toward making improvements in the marketing process. It means never letting up for one instance or thinking that "George" will get the job done. A program of ACTION will be an effective program.

In summary, remember that "A" stands for ATMOSPHERE in which you have set the right climate in which your program must operate. "C" is for the CONSERVATIVE approach to the program. Be sure you have not over estimated your results. Be sure your program is well financed. "T" means that you must TELL all of those involved in the program just what is expected of each other. "I" stands for the all important building blocks of your program, the INDIVIDUALS. Select them carefully for a specific purpose and they will get the job done. "O" is for all of the other ORGANIZATIONS that are involved in the marketing program. A division of markets, a department of agriculture, or a single organization cannot get a marketing job done by itself in this modern day agriculture.

Agriculture is no longer "agriculture" as we once thought of it. It is now "agribusiness." This section of our economy involves not only the farmer in the actual job of production, but all of those businesses that supply him with production supplies, and all of those businesses that take over the buying, transporting, processing, distribution, and merchandising of the products he produces. All of these organizations must be sold on your marketing program if it is to be a program of ACTION.

The last letter in the word ACTION is "N" for NEED. Fulfilling a NEED is the real reason for any marketing program to exist. If the NEED for more and better marketing programs is taken care of, then the farmer's economic position will be improved.

One hundred seventy-three million people in this Nation will then have food and fiber available that will be better and cheaper than ever before. Everyone in the marketing program will benefit.

If you do these things, you will have marketing programs of ACTION. The public will accept your programs. You will be making a great contribution to the total economy of this Nation.

CONCLUSIONS AND RECOMMENDATIONS

On informing the public about marketing improvements and programs

In developing this theme the work group reviewed the techniques of the Maine, New York, Georgia, Texas, Virginia, and West Virginia Departments of Agriculture.

It was suggested that States, along with other media channels, consider presentation of their marketing service information materials at such gatherings as the National Home Economics Convention.

The group suggested also that there is need for closer cooperation intradepartmentally between the marketing men and information men. Without such close relationship, it was suggested, much worthwhile and newsworthy material may well be overlooked.

Members of the group agreed also that at a future workshop it would be well to have members of the working press and other news outlets sit in with the publicity group. The group's thought was that this would prove of particular value to those marketing men in attendance who in their States do not have available the services of trained publicity personnel.

FRUITS AND VEGETABLES

Work Group Sessions

PROBLEMS TO CONSIDER IN ORGANIZING NEW MARKETING AGENCIES AND DEVELOPING NEW ASSEMBLY MARKETS

Leon Scott
Mississippi Department of Agriculture

INTRODUCTION

First, I would like to say that I am happy to be here and have a part on the program as we begin our first day of the 1958 National Marketing Service Workshop with the theme for this Workshop, "Adjusting Marketing Service Programs to Changing Conditions."

I am sure most of you, especially those of you like myself who have been connected with the fruit and vegetable industry for a long time in one phase or another, are aware of the many changes that have and are taking place each day in the marketing of fresh fruits and vegetables. These changes began 25 years or more ago, with major changes taking place during the past 10 years, and more so in the last 5 years. A large number of commodities that we enjoy the year round were a luxury a few years back, especially highly perishable products, which were available only during the local harvest season. In some areas most of the fresh fruits and vegetables sold in local food stores are grown in the same surrounding areas. While in other areas, as in the case of my State, most of the fresh fruits and vegetables for sale by retail food stores come from some of your States that enjoy a long growing and harvesting season, or have proper storage facilities for your product.

To supply the ever increasing demands for fresh fruits and vegetables for the year-round trade, and to help subsidize the farm income for our growers, intensive new production areas have and are being developed at a number of points throughout the United States. These new production areas being developed, along with the old production areas, naturally create a number of problems today in our marketing service programs and in the general field of marketing. The job of moving the large volume of fresh fruits and vegetables from the production areas to the food stores certainly necessitates the development of new marketing agencies, assembly points, modern facilities and last, but not least, the revision of some of our old marketing agencies and facilities.

Problems to Consider

There are so many problems to consider in organizing new marketing agencies and developing new assembly markets for a given area that it is rather difficult to pinpoint the specific problems that each of us might encounter. I will, however, attempt to outline some of the problems that we have come in contact with in Mississippi, and no doubt you have had or will have the same problems in your respective States.

(1) Production:

Ample production in the area for which a new marketing agency or assembly point is being considered is, in my opinion, the number one problem. It has been our experience in Mississippi that the problem of constantly supplying a sufficient number of commodities in a given area has superseded all of our other problems in marketing. The production of vegetables has been confined primarily to the central and southern part of Mississippi, and for the past few years these areas have developed rapidly from agriculture to industry. Consequently, we have evidenced the shifting of interest on the part of the farmers in growing fruits and vegetables to industrial employment and part-time farming, and this situation has made the annual supply of fruits and vegetables uncertain. I am sure everyone here today who has had some experience in the field of marketing knows that the larger the volume of different commodities offered for sale, the greater the opportunities for a successful marketing program. Most buyers are looking for a well selected variety of fresh fruits and vegetables; however, this is not always essential, provided you have enough of one commodity to supply their demands. Potatoes, sweet-potatoes, and watermelons are a few of the commodities by themselves that will usually suffice the demands of some buyers. In planning the organization of your new marketing agencies and the development of assembly points for a given area to be served, a thorough analysis should be made, and, in my opinion, the following problems and answers are vitally necessary before your final decisions, one way or the other.

(a) Survey the growers in the area to be served and try to determine from their reactions, whether or not they will actually support a new marketing facility.

(b) Try to get assurance from growers that ample production can be expected to support a market. Also try to determine the number of commodities that will be grown and marketed through the new facilities.

(c) Determine the method of financing and ownership.

(d) Information should be gathered to determine the type carrier or carriers that will be used to transport the produce to the consuming markets.

(e) Be reasonably sure that everyone concerned understands what is trying to be accomplished and is in accord with the final decisions.

(2) Location of marketing agencies, facilities, and assembly markets:

Another one of our major problems has been in trying to locate a new marketing facility. Each community within the area to be served usually makes every effort possible to have the facilities established in their locality. You cannot afford to yield to pressure groups just for the sake of satisfying their demands, and if you do so, and establish marketing facilities where they are not needed, all of your efforts will soon turn out to be a complete failure. In my opinion the following are some of the factors to be considered:

(a) Convenience for the most growers to be served.
(b) Best convenience for buyers.
(c) Accessibility to both rail and truck transportation.
(d) Accessibility to best highways.
(e) Convenient to icing facilities.

(3) Determine the proper grading and packing equipment needed:

Analysis should be made to determine the kind, size, and quantity of equipment needed in a given area, to accomplish the achievement for which you have set out to do. The grading and packing of fresh fruits and vegetables, in accordance with the official standards, is the first step required for orderly marketing and efficient buying and selling. Separation of products into various sizes and grades furnishes a basis for growers to pool their products in order that all may share equitably in the season's sales.

(4) Management:

One of the main factors and problems in a successful marketing program is the type of manager or the person delegated to be in charge. Good management is always hard to secure for various reasons, the main reason in Mississippi is because of short seasonal operations of the markets. When I say good manager, I believe he should possess the following characteristics:

(a) Ability to settle disputes between sellers and buyers fairly and on an impartial basis.

(b) He must understand the basic marketing principles and requirements.

(c) He must encourage both growers and buyers to support the facilities.

(d) He must be able to establish a good reputation for himself, the market, and the growers by assuring the buyers that a high quality product will be provided them at all times.

(5) Financing and ownership:

By financing, I am referring to the cost of facilities and operations. I know that the topic "Organizing and Financing Market Facilities" will be discussed thoroughly later on in our meeting, but I would like to discuss this problem briefly as it concerns us in Mississippi. We have found out that individuals and groups of individuals have been reluctant to make any appreciable investment in marketing facilities because of some of the problems that have been outlined above. The new marketing facilities have been subsidized by different county governments with some assistance from the Farmers Central Market, Jackson, Miss., which is a State-owned institution. Once these markets are completed and equipment installed, they are usually leased on a nominal rental basis to organized groups of producers, cooperatives, or corporations.

(6) Cooperation:

The success we have achieved in Mississippi in our marketing programs and service work can be directly attributed to the close cooperation between the State Department of Agriculture, Extension Service, Experiment Stations, and other agricultural agencies with the State. We have tried to overcome all of the above problems and to develop a sound program of production, organization of new marketing agencies and developing new assembly markets within the needed areas, by working together in a cooperative manner. A tremendous amount of work has been necessary to assist the farmers in meeting a large labor shortage by mechanization of both production and harvesting, as well as a continuing educational program as to the proper packing, packaging, and grading; also in the problem of determining consumer demands, and/or preferences, and getting this information back to the producers.

(7) Conclusion and summary:

I would like to urge all of you who might be planning a new marketing agency or developing assembly points to make a thorough analysis of your individual problems within your own State before you go too far with the establishment of new marketing facilities.

The following are a few of the factors that can have a detrimental effect upon the success of a market, definitely on a small market:

(a) Lack of sufficient production.
(b) Improper facilities.
(c) Poor location of facilities.
(d) Poor management.
(e) Lack of cooperation between all concerned.
(f) Failure to secure sufficient competitive cash buyers.
(g) Unsatisfactory financing and ownership.

PROCEDURAL STEPS IN DEVELOPING A NEW MARKETING ORGANIZATION AND PROGRAM

J. E. Youngblood
South Carolina Agricultural Marketing Commission

The easy way to get at this subject would be to prepare all the needs required in the development of a new marketing organization and slip them into a UNIVAC machine, then pluck the answers from the outlet slot. However, since one of these machines is not available here in Springfield I will be forced to do the job by hand.

Knowing full well that it will be trite, I cannot forego the statement that it is more necessary now than ever before to take a close look at the steps leading to the development of such a project. This is true because of the many changes going on in our marketing situations today. Not only are these changes numerous but many of them are revolutionary in character and forerunners of trends which will lead us we know not where. Examples are prepackaging, freezing, transportation innovations, integrated schedules, specification buying, etc. These factors cannot be ignored, along with many others, when blueprints are made for assembly market organizational and physical structures.

Now undoubtedly the type and, naturally, the procedural steps would vary according to the commodity -- or commodities -- and the existing local conditions. That is, some of the steps would vary. Some of the basic ones would apply regardless of the type, character, or size of the enterprise.

Probably the safer plan in conforming at least fairly well to the topic title would be to take a specific example and develop it. This would be done with the understanding of the group that it represents an illustration only and could be made subject to variations to fit local "climates." This is the case history:

1. A section is a concentrated watermelon center. Years ago the practice was to load in rail cars. Motor trucks changed this. Trucks going directly to fields gradually demoralized the price structure. No adequate focal point was available.

2. Growers grew more and more aware that some sort of stabilizing influence was a critical need.

3. Growers requested aid from the county agent and the marketing agent.

4. A survey was made by the Land Grant College into an array of factors which would determine the feasibility of an organized market place. (This included such things as average production, distances, selling practices, size farms, acreage availability, etc.) The conclusions indicated that an assembly market would be feasible.

5. Growers formed an informal steering committee and undertook to "take grower contributions" which would be converted into common stock if the effort succeeded or returned if it failed.

6. The steering committee requested and received a commitment for matching funds from the State Marketing Commission.

7. A charter was applied for and received. A constitution and by-laws adopted. Officers and a Board of Directors were elected by the grower-members.

8. This Board selected a site, bought materials, borrowed the services of a county prisoner who was a building contractor, and built the structures. Furthermore, the Board prevailed upon the County Legislative Delegation to pave the entire area.

9. The Marketing Commission "loaned" the Market a specialist to set up operations and to run the affairs for the first season.

10. The Board made rules and regulations by which the project would operate.

11. At year's end a report of the operation was given to the full membership, at which time plans for the following year were made and a slate of officers duly elected.

Note: The Board of Directors gave unstintingly of their time, meeting almost incessantly to transact the many, many bits of business incident to such an undertaking. In all things they assumed a strict, business-like approach to every detail.

Result: The project is a glowing success.

In these brief statements the basic elements involved in developing an assembly market have been outlined. I have endeavored to picture a comparatively simple framework. Others will no doubt fill in the variations and additions as this Workshop Section digs deeper into this subject.

CONCLUSIONS AND RECOMMENDATIONS

On appraising the needs for new marketing facilities at the local assembly level

The first speaker discussed the many problems to consider in organizing new marketing agencies and developing new assembly markets for a given area. Various factors to be investigated and considered were discussed at some length under the headings of production, location of marketing agencies, facilities and assembly markets, proper grading and packing equipment needed, management requirements, financing and ownership aspects, and the need for close cooperation between various State agencies in working with growers in setting up a marketing program. Special emphasis was placed on the importance of making a thorough analysis of the individual problems within a State before going too far with the establishment of new marketing facilities.

A few of the factors which can have a detrimental effect upon the success of a market were outlined as (a) lack of sufficient production, (b) improper or poor location of facilities, (c) poor management, (d) lack of cooperation between all concerned, (e) failure to secure competitive cash buyers, and (f) unsatisfactory financing or ownership.

The procedural steps in developing a new marketing organization and program were outlined by the next speaker by illustrating a specific instance whereby a marketing organization and facility were set up in his State for the marketing of watermelons and cantaloupes.

He also emphasized, as did the first speaker, the importance of a thorough analysis of the situation before attempting to set up a marketing facility.

The group discussion which followed was centered around the problems of developing new fruit and vegetable areas in the various States represented. Problems encountered in developing marketing organizations and facilities in old established production areas were also discussed at some length.

It was generally concluded from this discussion of developing new assembly markets and new marketing organizations that adequate supplies of acceptable quality produce to meet the need of present day buyers is an important prerequisite in setting up a marketing facility.

Problems encountered in the shift from individual sellers to a market organization are (1) lack of know-how on the part of producers, (2) inadequacy of equipment, (3) insufficient sales outlets, (4) interwoven interests on the part of individuals engaged in the direction or management of the marketing organization, (5) educational weakness in the younger layer of agricultural leadership, and (6) the extent of financial interest on the part of individual growers.

It was agreed it is often difficult to get a true picture of the needs in a marketing situation from the standpoint of economics and traditions involved.

The Board of Directors pretty well determine the success or failure of a venture in a marketing organization.

There is a responsibility to fulfill a need for marketing assistance in some areas where growers have not requested help.

The final determination of a need for a marketing organization and facility to follow lies with the producers rather than some other local interests. The idea is to have the support of both.

It was generally agreed when an organization has been set up and the facility built, the job is not completed as it is still necessary to get the buyers to come in and for the management to exercise adequate quality control in packing the product.

THE PRINCIPLES OF SOUND BUSINESS ORGANIZATION AND FINANCING AS APPLIED TO LOCAL FRUIT AND VEGETABLE MARKETING AGENCIES

Robert C. Kramer
Michigan State University

I am happy to meet with you this year. Michigan State University has a close working relationship with the Michigan Department of Agriculture, which is directed by George McIntyre. Mr. Miles Nelson and his staff in the Michigan Department of Agriculture have been very cooperative with all of us in Extension Marketing work.

Mr. William Crow and I have been friends for 10 years and he has always been ready to come to Michigan State and give a talk or help in any way we have requested.

As a member of the National Extension Marketing Committee I have encouraged joint meetings of State departments of agriculture representatives, research and extension workers. Many of you know that we have had these meetings and that others are planned. These meetings help us get to know one another better.

I want to discuss a marketing company which did not exist four years ago, but which did over a million-dollar business in 1957. This is the Eastern Michigan Vegetable Marketing Company at Capac, Mich. The short history of this company better illustrates sound business principles of organization and financing than any other marketing firm I know. There are many other marketing companies in Michigan which could be used as examples, but I do not have as much information about them.

Before listing some principles about the Capac firm I want to make it clear that there were many hurdles and that all of the problems have not been solved. Mistakes have been made and some business has been lost.

Capac, Mich., is 60 miles north of Detroit. Vegetables are grown on muck and on mineral soils. Growers had marketed in Detroit for many years. As the marketing structure changed and as Detroit grew in size, it became more difficult to market an individual grower's produce in the Detroit market. A number of growers decided that a group marketing program was needed.

In the fall of 1954, a dozen growers started meeting and decided to form a marketing company. In early 1955, the Eastern Michigan Vegetable Marketing Company was incorporated as a stock company. Charter members were each required to buy at least five shares of common stock at a par value of $100 per share. No stockholder may buy or accumulate more than 10 percent of issued Class A common stock.

With the money from the original sale of stock, 14 acres of land were purchased. The members of the company erected a 60- x 80-foot building. It was estimated they saved $4,000 by building it themselves. They agreed upon a sales agreement, hired a sales manager, and began operations in July 1955. They sold $592,000 worth of produce the first year.

Since July 1955, they have doubled the size of the building (now 60x160 feet) and have built two loading docks, one on each side - 28 x 160 feet. They have built a block labor house which accommodates 20 men. They own graders, packing equipment, a hydrocooler, a vacuum cooler, a lift truck, conveyors, pallets, and ice blower, and other equipment necessary for efficient packing shed operations.

This company still employs the same sales manager who sells five months a year, a year-round manager who sells when the sales manager is not there, a year-round dockman and floor manager, and a full-time accountant.

The sales in 1957 were $1,054,000. There were 49 members who owned 603 shares of stock; 21 members owned five shares; and one member owned 55 shares, the most held by any member. In 3 years the market value of stock had increased to $150.

In my opinion, these are some of the principles which the organization has followed and which enable it to grow and serve its members and owners.

1. Members wanted the company and worked hard for it.

2. Members bought enough stock to adequately finance the company.

3. The company is more interested in a grower's produce than in his stock purchase.

4. All commodities produced by member growers are offered for sale through the company, unless exemption is obtained through the management.

5. There is a comprehensive and strong sales agreement between member growers and the company.

6. Members have worked hard at public relations. They have taken time to show visitors how they produce vegetables and they have met with groups who visited their packing shed.

7. Members have recognized the value of publicity and have cooperated with newspapers, magazines, radio, and TV editors.

8. Members have obtained a very able sales manager and paid him well.

9. Members have met frequently and settled differences and answered questions before real problems developed.

10. Members have taken trips to keep posted and learn how other companies operate.

11. The company has been market oriented. Before marketing any produce a meeting was held with buyers to learn what the buyers wanted. This included varieties, size and type of package, etc.

12. Members are screened and only the cooperative, efficient producers are sold stock.

13. Cost studies are run to learn what charges must be levied to operate profitably.

14. Mechanical equipment is used to keep operating costs low.

15. Production is geared to the latest research done by seed companies, the USDA, and the Experiment Stations.

16. A market newsletter explaining company business is sent to all members every two weeks.

17. Weekly pools are set up for items and growers are paid on the basis of these weekly pools.

18. Two chain store buyers now spend full time during the selling season at the packing shed.

19. A Federal-State inspector is employed for the full season. His impartiality has largely prevented complaints from members about grade designations.

20. The local banker has been kept informed from the start about the company and its operations. Short-term loans have come from this local bank.

21. Acreage has increased from 2,500 to 4,000 acres and there is sufficient volume to operate successfully.

22. The company recognizes the demand from industry for mixed loads of vegetables. The company markets 20 different vegetables and ships mixed loads.

23. Custom packaging of apples, carrots, and potatoes in the winter months provides a 12-month operation. This enables the company to reduce its overhead and employ better men than can be picked up for only summer operations.

24. A trained accountant and a tested bookkeeping system enable management to know the status of the company at any time. Growers are paid within 7 days after the close of the week's pool.

25. The growers have complete confidence in the company's ability to get the market price for their produce.

The Michigan Cooperative Extension Service assisted this organization by making a District Marketing Agent available to help as requested by the members. On September 1, 1958, the District Marketing Agent was moved to another area and only the service of the County Extension Agent is now available. This transfer of the District Marketing Agent was arranged several months in advance of the move and had the approval of the members of the company. They felt they were past the experimental state and were fully capable of operating on their own.

The short history of the Eastern Michigan Vegetable Marketing Company has been most interesting. I shall be happy to try to answer any questions.

IMPROVING THE EFFECTIVENESS OF LOCAL MARKETING AGENCIES

C. Harold Bray
Kentucky Department of Agriculture

Challenge in fruit and vegetable marketing

Fruit and vegetable growers and their co-op or association are facing big problems, especially in selling their products competitively. The weak seller is completely at the mercy of the strong buyer. One of the principal problems is the lack of adequate communication between the shipping points and the sales desk.

More significant, however, is the relationship of the cash income to the real income derived from perishable marketing. It is quite apparent, however, that fewer and fewer farm firms are sharing in the aggregate income pie - thus the individual producer's share tends to be enhanced.

Need for a local marketing agency.

A. Production standpoint.

1. Production of fruits and vegetables has, in recent years, become a specialized industry and is usually on farms a considerable distance from the points of consumption. Under these conditions, scale of production is important in order to keep unit costs of assembling, packing, inspection, and transportation low. There must be sufficient volume to keep unit costs low with assured volume to market.

2. Produce must be graded and packaged uniformly in containers suitable to protect the produce during transportation.

3. Satisfactory market outlets must be found, which is almost impossible for the average-sized producer individually.

B. Marketing and market standpoint.

1. The retailing of food products has changed rapidly in the past few years. Only in recent years have many stores carried complete lines of fresh fruits and vegetables. Where most consumers purchased groceries at small neighborhood stores a few years ago, today by far most is purchased in large supermarkets.

2. For example, the Michigan State Consumer Panel indicated that 43 percent of consumers purchased fresh fruits and vegetables only at chain store supermarkets, while only 17 percent bought at independent stores. However, 74 percent bought some from chain supermarkets and 38 percent bought some at independent stores.

3. The large chain organizations have centralized buying, often purchasing on specifications or contracts. In order, then, to attract such buyers there must be a large supply, properly graded and packaged, of the quality desired to meet their needs.

Many difficulties faced by local agencies.

A. Lack of a binding contract for produce.

1. Meetings may be held early in the year to promote and discuss products and acreages for the current year. It is generally a discussion, with verbal commitments. These meetings are often limited to one a year and this is often the only contact with producers until the marketing season gets underway. Then and only then does the selling agency have any idea of the volume available to offer for sale during the season.

2. The local organization may assume that all of those who agreed to produce will deliver all products. Many, however, often do not deliver all of their products and thus supplies are reduced.

3. There is often a lack of knowledge by the agency of the movement of products from farm to market. When will the farmer harvest and how much? Instead of an even day-to-day supply for sale, receipts are large one day and short another. This makes sales policy difficult to develop.

B. Lack of uniform products.

Most local marketing agencies are unable to instill in producers a quality standard that is consistent with consumer preference, competition, and the local reputation for the product. The current consumer preference and competitive yardstick is for a high-quality product. The reputation of a local market lies not in ability to fill orders for quantity but also for a consistent quality standard. During a season, local markets often offer varying qualities of a product under the same brand name. More simply, a buyer is not sure that the same quality product will be available next week as obtained this week from a particular local market.

C. Lack of good public relations.

Too often the local agency does not hold sufficient training and grading demonstrations to educate producers to pick, grade, and pack the product uniformly and then criticizes producers for not doing a good job. However, good public relations would go a long way in making producers feel a part of the agency.

D. Lack of information of total supplies of the product and the market capacity for that product.

E. Poor management.

1. Most local agencies do not use management on a year-round basis. Local production is highly seasonal and of short duration, therefore, management services are utilized for only a short period. Consequently, local marketing operations are sandwiched into someone's year-round activities, which creates a spontaneous and a short-lived interest.

2. Because of this short period, the manager of an agency is not fully qualified -- he does not have market contacts nor is he a salesman. Also he lacks a knowledge of just what the market demands, so is not capable of transferring such information back to producers.

What can be done to make local agencies more effective?

A. Whether the agency is cooperative or private there should be a strong contract between the agency and the producer. Only in this way can the local agency know what volume can be expected. Of course weather conditions may increase or decrease expected supplies, but that can be calculated as the season progresses. There are many examples of "contract" deals. Many cooperatives have such contracts for members. These contracts should be modernized to meet present day conditions, then enforced.

B. A more complete understanding between the local agency and the producer concerning the products to be produced and sold. This should start with the selection of plants or seeds in order to provide a uniform product.

Field work or meetings as the season progresses to keep production practices, spraying, etc., uniform and on schedule are necessary.

Picking and packing demonstrations - stressing what the market demands, and rigid inspection to see that only such products are received.

C. More efficient receiving and handling methods.

1. The previous history of produce has an important effect upon the length of time it will remain in salable condition.

2. Delays in moving produce through marketing channels cause rapid deterioration in produce. Long waits to unload, and lack of shipping facilities can cause delays.

3. Rough or careless handling causes excessive bruising, cuts or breaks in the produce.

4. If it is necessary to hold the produce, use proper storage to maintain quality.

D. Whether the agency is private or cooperative, better public relations are needed so that the producer knows he is part of the whole organization. Also, the producer must be made to realize that his failure to produce,grade, and package correctly may not only affect him and his returns, but the reputation and success of the entire program.

E. Stronger and better management.

The production of an area may be limited to one crop and operations are limited to a few weeks. Such a short period of operation often limits the choice, or availability of competent management with a wide knowledge of market supplies and demands.

By expanding into other crops, or successive plantings, or early and late crops of some vegetables, the season might be prolonged and more competent management could be obtained.

F. Partial integration.

If we look at many successful operations which now may seem large, but started small, we find many examples of partial integration.

The citrus industry in California and Florida are examples of cooperatives which have integrated to get standardized products. The organization has taken over certain production problems, such as spraying, picking, grading, and packaging, for its members. The small local cooperatives have joined together to develop an overhead sales organization in order to get better distribution of the crops.

Other examples in private enterprise are also available. Large canning or preserving companies that contract with producers very often take over the harvesting and grading operations in order to get the uniformity and quality within their products that they consider desirable.

During the educational process with producers, especially new producers, it may be desirable for the local agency, whether a private individual or a cooperative, to take over certain operations on the farm, such as spraying, dusting, harvesting, and packing in order to obtain a uniform high quality.

Such operations are more important today, especially if the local agency is endeavoring to break into the specification buying market or the contract market now so common in the case of large buyers.

CONCLUSIONS AND RECOMMENDATIONS

On organizing and financing marketing agencies

In the morning session the speaker illustrated the principles of sound business organization and financing as applied to local fruit and vegetable marketing agencies by describing the organization and operation of the Eastern Michigan Vegetable Marketing Company at Capac, Mich., organized in 1955, selling $592,000 worth of produce that year and growing to handle produce valued at $1,054,000 two years later in 1957. In pointing out some of the principles this organization has followed which have enabled it to grow and serve its members and owners Mr. Kramer assured the group that not all their problems had been solved.

The principles outlined by the speaker and discussed at some length in group discussion were as follows:

1. Members wanted the company and worked hard for it.
2. Members bought enough stock to adequately finance the company.
3. The company is more interested in a grower's produce than in his stock purchase.
4. All commodities produced by member growers are offered for sale through the company, unless exemption is obtained through the management.
5. There is a comprehensive and strong sales agreement between member growers and the company.
6. Members have worked hard at public relations. They have taken time to show visitors how they produce vegetables, and they have met with groups who visited their packing shed.
7. Members have recognized the value of publicity and have cooperated with newspapers, magazines, radio, and TV editors.
8. Members have obtained a very able sales manager and paid him well.
9. Members have met frequently and settled differences and answered questions before real problems developed.
10. Members have taken trips to keep posted and learn how other companies operate.
11. The company has been market oriented. Before marketing any produce a meeting was held with buyers to learn what the buyers wanted. This included varieties, size and type of package, etc.
12. Members are screened and only the cooperative, efficient producers are sold stock.
13. Cost studies are run to learn what charges must be levied to operate profitably.
14. Mechanical equipment is used to keep operating costs low.
15. Production is geared to the latest research done by seed companies, the USDA, and the Experiment Stations.
16. A market newsletter explaining company business is sent to all members every two weeks.

17. Weekly pools are set up for items and growers are paid on the basis of these weekly pools.

18. Two chain store buyers now spend full time during the selling season at the packing shed.

19. A Federal-State inspector is employed for the full season. His impartiality has largely prevented complaints from members about grade designations.

20. The local banker has been kept informed from the start about the company and its operations. Short-term loans have come from this local bank.

21 Acreage has increased from 2,500 to 4,000 acres and there is sufficient volume to operate successfully.

22. The company recognizes the demand from industry for mixed loads of vegetables. The company markets 20 different vegetables and ships mixed loads.

23. Custom packaging of apples, carrots, and potatoes in the winter months provides a 12-month operation. This enables the company to reduce its overhead and employ better men than can be picked up for only summer operations.

24. A trained accountant and a tested bookkeeping system enable management to know the status of the company at any time. Growers are paid within seven days after the close of the week's pool.

25. The growers have complete confidence in the company's ability to get the market price for their produce.

The Michigan Cooperative Extension Service assisted this organization by making a District Marketing Agent available to it from its inception to September 1 of this year.

The afternoon session was led off by the second speaker of the session discussing the methods for improving the effectiveness of local marketing agencies. He discussed factors to consider from the standpoint of production and marketing in evaluating the needs for a local marketing agency. The difficulties found by local agencies such as lack of binding contracts for produce, uniform products, good public relations, and proper management were pointed out to those present. In conclusion, the speaker emphasized what could be done to make local marketing agencies more effective such as strengthening contracts between agency and producer, a better understanding between local agency and producer concerning the products to be produced and handling methods, better public relations, stronger and better management, and partial integration of the production and marketing functions performed by the marketing agency.

The group then discussed the various types of marketing organizations and agencies operating in Kentucky and other States and indicated the reasons for their success or failure.

It was agreed that an assembly market organization is not always the answer to a marketing situation due to the lack of good management, a standardized product or volume.

It often can be very hazardous to set up a marketing organization and facility in an area which is not an established production area.

It was concluded if a marketing agency is too small or too poorly financed to operate efficiently that producers should either be advised to go out of production or confine production to a family-size unit and market the product locally.

It is the general consensus of the group that it is wise to build the marketing facility with the growing need for the product rather than a growing potential, which may never materialize.

INDUSTRIAL ENGINEERING TECHNIQUES AND THEIR APPLICATION TO FRUIT AND VEGETABLE HANDLING AND PREPARATION FOR MARKET

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The industrial engineering techniques most frequently used in dealing with problems of fruit and vegetable handling and preparation for market are plant layout, materials handling, work simplification, time study, and engineering economics.

With the tools of plant layout we make an objective approach to the problems of plant or warehouse capacity and equipment requirements. Present needs as well as short-range and long-range growth requirements must be given weight so that a planned and orderly expansion can take place with minimum cost and disruption to a going business. Fruits and vegetables present unique storage requirements since low temperatures and high humidities must be provided for certain groups of these commodities. Changing business needs, equipment obsolescence, package design, and other factors have to be considered to the extent that a new facility can be adapted with minimum alterations as a result of those changes. This can be summed up by saying that the space provided should be as flexible as possible. Once the size of the warehouse or plant and its individual components has been established, the components must be arranged in such a manner to permit smooth efficient operations. Stated in the fewest words, this arrangement should provide for direct flow of the commodities from the receiving area, through storage or processing, to the shipping areas. The distances that must be traversed in the process should be kept to a minimum.

The techniques of materials handling are closely allied with those of plant layout. The objectives are to select or devise those methods and equipment types so that the job of product movement can be achieved at the lowest possible cost. This includes the determination of balanced crew sizes in which lost time is held to an irreducible minimum. Unit loads are utilized wherever practicable to minimize the number of handlings and transportations. When economical to do so, mechanically powered equipment would be substituted for manual handling. Throughout the application of these principles maximum equipment and labor utilization is implied in order to maintain total handling costs at the lowest possible level. When a large variety of products are handled such as in a terminal market or in a service wholesale warehouse, the equipment selected should be capable of a wide variety of uses and applications.

Work simplification or motion study is used to study the patterns of work of an individual employee or to study his workplace. Frequently both are studied. The objectives of this technique are to provide normal working areas which result in the largest number of productive motions, eliminate unproductive motions, and minimize fatigue. As a result worker productivity can be increased because the job is easier to perform. To accomplish this, arm movements and transportation distances at the workplace are minimized. Work patterns are established to permit smooth and rhythmical movements, with tools and materials being prepositioned whenever possible.

Time study is similar to motion study in that the activity of an individual worker is studied carefully and in much detail. However, time study adds the measurement of time to the investigation. The objective recording of time consumed productively and unproductively gives a complete insight into the efficiency or lack of efficiency that may exist. The efficiency and the productivity are affected by the equipment, the methods and/or worker effort. Time analysis ferrets out in terms of accurate time measurement the areas of inefficiency. Logical combinations of the time values for productive work elements can also result in the development of new, low cost operating methods.

Time study has been used almost exclusively in the manufacturing industries to establish incentive standards. However, our use of this technique in connection with marketing problems has been for the purpose of making an accurate allocation of costs to handling and processing operations. It also provides the basic data for the development of new or improved methods and equipment.

The final analysis of the relative value of different methods of operation and of different types of equipment takes place when the engineering economy study is made. The assignment of dollar values for both labor and equipment costs has to be done as carefully and as objectively as the time data were collected. All the components of labor and equipment cost and utilization must be brought together so that there are no omissions of cost factors that would prejudice the interpretation of the cost comparisons. Each method, equipment type or operation would be analyzed to determine which alternative provided the lowest costs for handling or for preparation of fruits and vegetables for market.

In applying industrial engineering techniques to these problems of handling and preparation for market, frequent opportunities are found to develop lower cost operating methods. For example, modern materials handling equipment has a builtin capacity for a high level of productivity. Frequently that level is not achieved because labor assigned to use it is not efficiently utilized. In one service wholesale warehousing operation this fact was illustrated quite effectively.

One major objective that service wholesalers have in loading fruits and vegetables on their delivery trucks is to completely load these trucks in the least time possible. This demand for fast truck loading is often exaggerated to such an extent that excessive amounts of money are spent to achieve it. In one warehouse operation where this was true a nine-man crew was assigned to load a truck with the use of a belt conveyor. The men were assigned as follows: One man was the checker, one man stowed packages in the truck, and seven men were assigned to belt loading. The order assembly area that was used by this crew was completely stocked, on the basis of a master recap, before truck loading began. A limited number of time studies indicated that each ton of produce loaded on a truck took 0.78 man-hour. Additional studies were unnecessary because even a casual observation indicated that the belt loaders were idle a high percentage of the time because the checker could only assign work to one man at a time. At best, two men might work at the same time depending upon the number of items assigned to each one. The capacity of the belt was also limited. Very often when two men had work assignments at the same time, there would be packages on the belt, moving past the work station of one of the men preventing him from doing his work. It was quite apparent then that 5 additional crew members had very little opportunity to engage in productive work.

In order to determine if crew productivity could be improved the number of belt loaders was reduced from seven to four. As a result the total crew size dropped from nine to six. Idle time was reduced, but it was still considered to be excessive. Time studies indicated that 0.63 man-hour was required for each ton loaded out. This was a reduction of 19 percent from the man-hour required when a nine-man crew was used.

In seeking further improvements the crew size was reduced to four men with two assigned as belt loaders. Studies of this arrangement indicated that the man-hour requirement per ton was now reduced to 0.47. This was 25 percent less than the man-hour requirement for a six-man crew and 40 percent less than that required for the nine-man crew.

It would appear then that the most effective crew size was four men. However, inadequacies in preparation and organization for truck loading now became apparent. It was obvious that in order to sustain a crew that could load a truck at the least cost per ton, it would be necessary to revamp the layout of the order assembly area, the split package operation, and the invoice system.

A major portion of the revision effort was directed toward improving the invoice and master recap procedures. Although the use of preprinted invoices would have reduced the clerical work involved, attention was given to the effect of the organization of the invoice itself on warehouse procedures. With this in mind, a detailed study was made of the volumes of each commodity shipped out during the year. As a result, it was determined that 10 commodities accounted for two thirds of the total tonnage shipped. These were listed in the upper left hand corner of a new mimeographed order check list. The remaining items were grouped alphabetically under the separate headings of fruits or vegetables.

When the blank invoices were filled out, the items appeared on the invoice in the same order that they appeared on the check list. The order in which they were listed was significant because the layout of commodities in the order assembly area was revised to conform with that order. The 10 high-volume commodities were divided into 2 groups of approximately equal tonnage. One group was placed on the left side of the belt conveyor and as close to the truck dock as possible. The second group was placed on the right side of the belt. The remaining commodities were then divided into 2 groups of equal tonnage and distributed along the conveyor. When all the commodities had been placed in the order assembly area, their arrangement from the front of the conveyor line to the back was in the same order as that in which the items appeared on the order check list.

When this plan was developed, a new recap was devised to correspond with the order check list. Commodities stored in one part of the warehouse or in one cold storage room were grouped together so that the recap could be used for making work assignments.

Provision was also made on this recap to summarize the number of split packages ordered. When all of these packages were carefully prepared, it eliminated one of the reasons why the four-man crew could not operate effectively. In the old system, a belt loader had to leave the order assembly area to make up a split package when it was called for because it had not been prepared in advance of truck loading.

An accurate recap is a necessary prerequisite for the smooth operation of a crew of this size. If a belt loader had to leave the area to get a full package that had been omitted from the recap, the operation would be delayed needlessly. Since these delays cost money, it is highly desirable to minimize them if they cannot be eliminated.

When the new arrangements and procedures had been tried and the "bugs" of inexperience worked out, time studies were made of the new operation. The crew assignment for the four men were the same as before. The major difference was in the organization of the work done prior to truck loading and in the position of the commodities in the order assembly area. The results of the studies indicated that a four-man crew could now load one ton of fresh fruits and vegetables in a delivery truck in 0.38 man-hour. This represented a reduction of 19 percent in the man-hour required by the same crew using the old system. It also represented a reduction of 51 percent in the man-hour required by the original nine-man crew.

In this case reduced cost of operation and increased worker productivity were accomplished without any capital expenditure for equipment. The available equipment had the capacity but it was just not being utilized. Further reductions in labor cost could have been achieved with the use of preprinted invoices.

Some service wholesalers feel that large crews are required to complete the truck loading operation in as short a time as possible. They find that this is usually necessary to meet the demands of customers and to maintain the quality of the commodities shipped out. However it is interesting to note that the four-man crew using the revised assembly and invoice method took 0.095 hour of elapsed time, where the nine-man crew took 0.087 hour. This meant that a four-man crew took one half minute longer to load a ton of fruits and vegetables on a truck than the nine-man crew did, while the labor cost was 51 percent less. It is quite probable that if preprinted invoices had been used, the slight additional elapsed time required by a four-man crew would be eliminated.

In another phase of marketing, sorting of fruits and vegetables has always been a costly part of preparation for market. Several years ago it was estimated that approximately 25 percent of all hourly rated labor in California pear and apple packinghouses was employed in sorting. Labor alone accounts for over 95 percent of the total cost of the sorting operation.

Invariably, when labor inputs are large, industrial engineering techniques can be used to advantage in improving both methods and equipment to reduce labor costs. The first approach to this particular problem was to investigate the requirements of visual inspection for surface characteristics. Basic studies indicated that the speed of both translation and rotation of product past a sorter affected sorting efficiency. It was also determined that moving the product directly toward the operator resulted in a better sorter's performance. On most sorting lines the product approaches from the sorters right or left side. Research also found that inspecting for more than one defect caused a decrease in efficiency as the number of defects sorted were increased. Improvement in the selection and training of personnel assigned to sorting was also found to be an important consideration. The next step after this laboratory investigation was to determine the comparative efficiency of methods and equipment used commercially for the sorting of apples.

Conveyor belt, spiral roll, and reverse roll tables were studied. Labor and equipment inputs were determined through time study and work sampling. The economic analysis that followed indicated that the lowest cost as well as the greatest productivity was achieved with the reverse roll table. There were two principal reasons for this: (1) The rotation and translation of the apples made possible with this table simplified the visual check for defects, (2) it minimized handling since the only apples lifted from the table were C grade and cull apples.

During the course of the studies on these tables it was noted that the majority of the apples were inspected three or more times. This occurred because the acceptable apples remained on the table and passed by each sorting station. The solution to this problem was to modify the reverse roll table so that each apple was checked only once. The modification involved the construction of a series of lanes on the sorting table. Each worker was then assigned responsibility for one lane. As a result, productivity increased from 10 to 46 percent depending upon the percent of low grade apples and culls in incoming lots. These benefits were also obtained:

1. Duplication of work was eliminated.
2. Sorters developed a feeling of responsibility.
3. Work was equalized among sorters.
4. Output of each sorter could now be checked.
5. Better sorting techniques were possible, i.e.,fewer apples were picked up.

In addition to providing lanes, translation speed was increased because of increased worker productivity. The extra speed had an added advantage because the worker had to turn toward the flow of fruit. As a result the angle of observation permitted more complete inspection of the apple surface. This contributed to a further increase in sorter effectiveness. Disposal chutes were provided adjacent to individual work stations to minimize arm and hand movement in disposing of culls.

Intensive work on the reverse roll table indicated a number of deficiencies in its design that prevented the achievement of greater productivity and a lower operating cost. Therefore a new table was designed, developed, and built to permit further improvement of the sorting operation. This table, which is now in commercial use, is known as the float roll table. In this table the apples ride on rubber covered rollers which rotate and translate the apples. Since the apples sit up higher they can be more completely observed. Speeds of rotation and translation can be varied over a wider range than was possible on the reverse roll table. Rotation of the apples was much smoother and consistent than on the reverse roll table.

Time study and work simplification contributed to the improvement of the sorting operation and the consequent reduction in costs as shown below.

Equipment	Labor cost per 1,000 boxes of loose fruit when 30% is low grade and culls
Belt table	$45.85
Spiral roll table	34.32
Reverse roll table	33.05
Improved reverse roll table	28.22
Float roll table	24.16

These research results indicate that industrial engineering techniques properly applied by carefully trained personnel can contribute to the development of new or improved methods, equipment and facilities that will permit lower cost handling and processing operations.

USING COST DATA TO INCREASE PLANT EFFICIENCY

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The success of any packinghouse depends on volume of production, the prices received, and costs.

In reality, there is very little packinghouse management can do to affect prices he may have to pay for equipment, materials to be used in packaging, and wages paid to labor. In addition to this condition, it is usually necessary for management to sell his finished product at the same prices paid by all buyers. As the result of these conditions the most logical, and probably the only way management can lower his costs, is by increasing his business and efficiency. This will increase his income.

The scope of existing inefficiencies is much greater than anyone would expect. It has been estimated that 25 to 50 percent of all manual work done in our shops, offices, factories, and homes is unnecessary. As far as the handling of agricultural products is concerned, this percentage is on the low side. By improving the handling methods and procedures of agricultural products, expenditures will be reduced and the quality of product will be greatly improved.

In attempting to collect and record materials handling information to be used in determining handling methods of greater economy, one is confronted with a number of problems.

When general terms are stated they are likely to be abstract and of limited practical value; if specific rules and methods are stated, they will most likely lack universal application.

The assignment of a materials handling marketing agent is to interpret by means of specific examples some of the general practical principles of materials handling which have been and will continue to be successful in reducing marketing costs and improving the quality of Virginia's agricultural products.

The first step in developing a better or more practical materials handling method is to get an accurate picture of the present method. This is usually done by making a list of all the operations. (This is usually done in sequence.) A flow diagram representing the flow of the product through the plant is made in order to obtain an actual view of the activity in the packing plant.

It is fairly easy to list the steps and prepare a flow diagram. The real problem is making changes that will result in a better, easier, and safer method of performing the job -- continuously keeping in mind the importance of quality.

The best way to approach the problem is to question everything about the job:

(1) What is done? What is the purpose of the operation?

(2) Why is it done? What would happen if it were not done? Is every part of the job necessary?

(3) Who does the work? Who could do it better? Can changes be made to permit a person with less skill and training to do the work?

(4) Where is the work done? Could it be done somewhere else more economically?

(5) When is the work done? Would it be better to do it at some other time?

(6) How is the work done?

After all phases of the job have been subjected to the above questions, the following possibilities are considered for improvement:

(1) Eliminate all unnecessary work

(2) Combine operations

(3) Change the sequence of operations

(4) Simplify the necessary operations.

Since all operations require human effort or attention, the operations are studied either by the time and motion method, or the work sampling method. Each operation is divided into small elements and each element is accurately analyzed in relation to the amount of time required to perform the element.

After sufficient studies are made of the elements in the operation (by sufficient, I mean enough to get an accurate average time), the wage rate paid the operator is applied to the time. This is the actual labor cost to management for having the job performed.

While this type of analysis is being conducted, it is possible to detect where and when it is practical to combine jobs, eliminate jobs, and improve the efficiency of the overall operation.

Different methods of performing the operation are discussed, tested, and analyzed for the purpose of eliminating all unnecessary motions and improving the sequence of motions for maximum efficiency.

After proposed changes are made in the performance of the operation, the new method is studied in order to determine the increase in efficiency and the reduction in cost.

The comparison of the old and new cost figures is the most effective means of selling management toward improving his overall plant efficiency.

The follow-up or application step of putting the improved work methods and techniques in effect and making them work is very important. It is important to see that the new method is followed and the old method discontinued.

Plant flow diagrams, indicating storage areas, transportation, inspection areas, operations and delays, are prepared for plant management both before and after the approved changes have been made in the movement of his product through the plant. In addition, cost bar graphs are made of each job both before and after changes have been made in the methods of performing the jobs. Bar graphs have proven to be an ostentatious means of displaying job costs and a continuous effort is made to reduce these individual costs at all times.

An example of cost reduction follow-up in one of Virginia's apple packing plants is:

During the 1955 apple packing season, one plant in Virginia employed 71 employees to pack their fruit. Labor cost per bushel was approximately 30 cents

After time and cost studies were made during 1955 and 1956 packing seasons, it was possible to reduce their labor from 71 to 54. Although the wage rate for labor increased, management reduced their labor cost per bushel by one cent.

After further studies and improvements were made, the labor force was reduced from 54 employees to 44 during the 1957 packing season. Thus reducing the cost labor per bushel from 28 cents to 26 cents.

I propose that the following conditions be closely observed when attempting to improve the efficiency in packing plants:

1. Failure to use available equipment efficiently.
2. Excess labor.
3. Need of repairs to present equipment.
4. Congested operating areas.
5. Congested shipping areas.
6. Failure to assign job responsibility.
7. Lack of either sufficient or competent supervision.
8. Obsolete equipment.

In summary, it is recommended that while making the evaluation of savings on a time and cost basis, it is advisable to continue asking for ideas and suggestions for additional improvements from all personnel interested in the product. And last but not least, give credit for the improvements where credit is due.

CONCLUSIONS AND RECOMMENDATIONS

On assisting management in improving operating efficiency

Industrial engineering techniques and their application to the preparation and handling of fruits and vegetables coupled with the use of cost data to increase plant efficiency provided some interesting material for group discussion.

It was brought out in the discussion on this subject that the selection of materials handling equipment should be made prior to planning the building layout. Also, the purchase of new equipment for an installation will not necessarily make the facility more efficient unless the management has the know how to use this equipment effectively.

It was deemed unwise to assist the small plant operator to improve his facility when it is evident that it is just a matter of time before the operation will be out of business.

It was agreed that often higher labor rates have led to more efficient use of labor brought about by plant and equipment modernization with a resultant lowering of unit labor costs.

LIVESTOCK

Work Group Sessions

The Canadian Meat-Type Hog Program

H. J. Maybee
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The Meat-Type Hog Program, or National Bacon Hog Policy, as it was originally designated in Canada, has many facets including federal and provincial assistance in the production field, pig testing, and so on, but since this is a marketing conference we will confine our remarks mainly to the grading and marketing aspects of the program.

Development of Live Grading

At the end of World War I, Canada was faced with the necessity of doing something about hog quality in order to hold a place on the U. K. market for our surplus pork products. The surplus was potentially large and the quality was low. The U. S. market was only spasmodically attractive.

Sparked by the federal Department of Agriculture, and supported by provincial Departments, all phases of the industry became interested and one of the results was a national system of live hog grading which was started in October 1922. Grade standards had been set up, based roughly on the requirements of the U. K. bacon market for long lean Wiltshire sides. The grading was done at public stockyards and at packing plants, with the trade doing most of the grading, and government inspectors checking their work.

For some time it was mainly a matter of getting the grading machinery in good working order, but gradually farmers, shipping clubs, and cooperative organizations began to mark their hogs as to producer ownership and settle on the basis of a grade certificate. Before long the government grading staff was increased to take over all the grading and also to carry out promotional work such as grading demonstrations at country loading points.

By gradual steps through federal and provincial legislation the purchase and sale of hogs on the graded basis became compulsory. Every farmer received a grade certificate. If he sold through a cooperative his hogs were marked and he was paid on the official grade. If he sold through a drover or trucker, the drover could grade his hogs and turn in a report to the grader showing his own grading on each lot in his load. The Department then mailed a report to each farmer showing the drover's grade on his lot of hogs, the drover's grade on the whole shipment, and the official grade on the whole shipment. Many drovers took pride in having the official grade turn out exactly the same as their own on one or more carlots of hogs.

If a drover could not or would not grade reasonably in line with official standards he was required to mark each farmer's hogs for official grading. Thus every farmer received either a reasonably accurate drover's grade or an official grade.

Quality Improved

In general, the grading system got results. The first few months were pretty rough, with sales agencies and packer's men whose routine was being disturbed openly antagonistic to the whole scheme, and bets were made that it would all be forgotten in 6 weeks or 6 months. Also, drovers who purchased hogs outright from the farmers took a dim view of it. But in almost every neighborhood there was a co-op shipping club organized in competition with the drover and these clubs operated on the graded basis. The farmers with the best hogs would ship with the club and the drover would get the bad ones, which he found increasingly difficult to sell to the packer without discount.

So, the influence of sale by grade was steadily spreading. Farmers were switching from lard-type breeding stock to Yorkshires and other English breeds (assisted by various production policies - Boar Clubs, Bacon Hog Fairs, litter competitions, Brood Sow policy).

During the period of live hog grading, 1923-1939, the percentage of top grade for Canada increased from 15 percent to 30 percent. In Alberta this was 2 percent to 33 percent and in Ontario 21 percent to 33 percent, (the largest hog producing provinces). This was only part of the improvement since the content of the second and largest grade had been completely changed.

Live Grading Served a Purpose

After 10 or 12 years of live grading we began to see its limitations. It was adequate to separate the thick smooths from the selects. It was a rough and ready kind of sorting but it was a start. Now most of the thick smooths had disappeared and most hogs had some degree of bacon type, or meat type. Our main target was still the top English Wiltshire, 55-65 lb. with very precise specifications for type and fat. Fortunately the hog which met these requirements was also the best one in the domestic trade.

It became evident that more accuracy of grading was now needed to make further progress, on the score of both appraisal of carcass quality and also weight. Overweight hogs could be shrunk out to get into the first or second grade alive but would still be overweight on the rail.

Hog Carcass Grading Introduced

The idea of carcass grading began to develop around 1930. Tentative grades were established which were mainly based on the live grades and weights. Hogs from bacon litter competitions and bacon hog fairs were graded and judged on the carcass basis. A practice grew up on the public markets where, if a salesman protested a live grade awarded by the grader, he would ask for a carcass grade. The hogs would be tattooed and checked on the rail. There was never any dispute about the carcass grade. Weight and fat measurements were obvious to anyone.

In one large plant a special project was conducted for several weeks when some 25,000 hogs were carcass graded on the proposed standards. This proved the system practicable and indicated how the regular run of hogs would grade on the carcass basis.

In 1934, an official carcass grading service was offered at a few plants on an optional basis. This was gradually expanded to all plants in Canada as the plants became equipped and graders trained. Special automatic scales were developed with suitable weigh tickets, as well as a tattooing technique to identify each hog as to producer ownership.

Much attention was given to office procedures in order to facilitate rapid settlement. The scale tickets which show weight, grade, and identification, flow from the kill floor to the livestock office where graders and plant clerks cooperate in completing the grade certificates and settlements. An important point here is to avoid mixing large droves of hogs before slaughter so that one farmer's lot will not be spread throughout a large kill. The average size of lot marketed in Canada is about 4.5 hogs. Completed settlements are available for practically all hogs either on the day of arrival or the following day.

100 Percent Carcass Grading (Change-over)

The dual system of live and carcass grading was maintained for six years until 1940, when live grading was discontinued. Around 60 percent of all hogs were being optionally rail graded and there was no great difficulty in bringing the remainder into line.

Carcass Weight Basis

By common consent the settlement on carcass weight has generally been adopted along with rail grading. While the Department has always favored this method there has never been any pressure brought to bear in this regard. Theoretically hogs may still be bought and sold FOB, WOC, 11/ WOT, 12/ F & W, or dressed weight. Incidentally, the fed and watered system disappeared many years ago. This meant that some expert hog-stuffers were out of a job. It has also been noted that very high priced hog buyers are not so plentiful as in the old days when expert appraisal of carcass yield was necessary.

Good producers favor the dressed weight system and weigh their hogs as they are approaching market weight so as to get them into the preferred weight range.

In the case of some long distance shipments a special settlement may be made to compensate for extra shrink and lower carcass yield. This may be a price bonus on a guaranteed minimum yield. While actual loss in carcass weight cannot be proven, it is generally conceded that there is a small flesh shrinkage in long shipments (1 percent--2 percent).

General Acceptance

The dressed weight and carcass grade system has, therefore, become generally accepted and supported by both buyers and sellers across the country. There is an occasional complaint that a farmer didn't have a sow, or a heavy, or a ridgling as shown on his grade certificate. The original weight tickets are kept on file for a year and these can be checked in case of complaint. The grader often makes a note on the ticket about any unusual condition of the carcass. Also there are symbols which are checked off to indicate the main faults (why the carcass did not make Grade A).

The more important complaints come from the farmer who got a poor grade -- usually too many C's - and we pay special attention to him. Where possible he is visited and we advise him about his breeding stock and feeding and, especially, he is urged to accompany his next lot of hogs to market and see the carcasses graded. Many producers do this and have been amazed at the layer of fat on their hogs which they had believed to have "just good market finish."

Many organized groups of farmers visit the plants and usually see a group of carcasses from their own locality graded and discussed. Junior farmers come in for carcass judging practice as part of their 4-H work.

Jurisdiction and Cost of Service

During recent years federal and provincial jurisdiction have been clarified so that now there is no federal control over a commodity which does not cross a provincial boundary. In the case of meat carcasses and many other commodities, the Canada Department of Agriculture sets up national standards and offers a grading service if certain conditions are met. The service is automatically provided in all plants operated under federal inspection.

11/ Weighed off cars.
12/ Weighed off truck.

The grading service is provided by the government without cost, although the day may come when the industry will be asked to carry this cost (as in the U. S.). Hog carcass grading is not very expensive in Canada since the same staff grades beef, veal, and lamb, and also handles stockyards' administration and market reporting. It would amount to only a few cents per hog. ($900,000 cost these services x 1/3 allocated to hogs = $300,000; $300,000 ÷ 6 million hogs graded = 5 cents per head).

Status and Value of System

As already indicated the hog carcass grading system has become firmly established and accepted in general. In fact, the use of the carcass basis of sale is steadily increasing for other meat animals on the optional basis (lambs and beef).

Cooperative selling agencies, which now handle the bulk of the hogs, are firm supporters of it.

Some of the objections which have been raised are that it has diverted hogs from the public markets, that it hinders export and other long distance selling, and that it robs the farmer of bargaining power because his hogs may be in the packer's cooler before he knows the price or gets settlement.

As to the first it can be said that the trend to more direct selling was inevitable with the decentralization of the packing industry and the development of truck transportation. The same trend has been noted in the U. S. where there has been no carcass grading. There is no restriction on export, the hogs simply go without grading, and the trade has developed its own remedies for the added shrink on long shipments. On the third point, if the farmer lost any bargaining advantage it was his own fault, usually by giving his hogs to a trucker to act as his selling agent. Any farmer can know the going price at any time and he can sell through a responsible agency which will protect his interest. As a matter of fact three of our provinces now have hog marketing boards which have legal control of all hogs marketed. It is just as easy to bargain for a carcass price as for a live weight price.

The Ontario Hog Marketing Board has set up assembly points in areas not close to the central stockyards; some hogs are sold by auction at public markets in the West; and there is now a start being made, in one province, with "boarding" hogs which are routed direct to the plant of the highest bidder. (Blackboard in auction ring). The point is that the carcass grading system can function in any marketing channel.

Pricing and Differentials

For convenience it is customary to regard one of the top grades as the basic grade. Prices are quoted on this grade and there are more or less fixed differentials between the grades. The differentials may be in dollars per hog, in dollars per cwt., or even as a percentage of value. All these methods have been used in Canada.

The present system is to quote prices on the top grade only. The other grades have their own prices per cwt., but the spreads between grades do not change frequently as does the basic price. The differential between grades A and B 1 has remained at $1 per cwt. at all markets for the last few years.

For some years the practice in making settlements was to show the weight of the whole lot of hogs at the basic top grade price, then the discounts for each grade were deducted. Originally it was thought this would have a good psychological effect on the producer as he would see at the top the amount he would have received if his hogs were all top grade. However, it seemed to annoy him more than anything else and it was a common expression that "Mr. Deduct" was getting all the profits.

In live grading a useful short cut in weighing hogs was provided by the cash differential per head, as it made it unnecessary to weigh each grade separately.

Present Situation

There has been some levelling off in hog quality improvement in Canada as a whole since 1941 when rail grading became the general practice. In 1942, the percentage of Grade A was 29.9, last year it was 28.7, and this year to date it was 28.7. In the interval it was just above 32 percent on different occasions and was down to 25.9 in 1954.

There is no evidence that carcass grading was a factor in causing this set-back. Hog quality would probably have been worse without carcass grading. The real reasons seem to be that in eastern Canada the hog is only one of many farm enterprises - it is a side issue - not considered, by many producers, to be worthy of special effort. In the West, with abundant cheap feed, the emphasis has been on tonnage rather than quality, with a minimum of labor.

Some areas and individuals have proven that hog quality can be almost continuously improved under proper husbandry. P.E. I. hogs graded 35 percent A's in 1941 and 52.9 percent in 1957. Last year 16 counties in Ontario had over 35 percent Grade A hogs and one of the largest producing counties had 40 percent Grade A. Individual producers and organized groups can and do consistently get 75 to 90 percent top grade.

Therefore, it is felt that the system provides the means to assist any producer to improve his hog quality if he cares to make use of it.

We do think our carcass grades are capable of improvement and work on this problem is proceeding at present. We expect to tighten up on the maximum fat allowed in the top grades and make some adjustments in weight ranges. We have the same objective as you in that we want to sort the hogs on the basis of their out-turn of lean cuts. This is a complicated problem and we are extremely interested in the excellent progress you are making in the U. S. with your meat-type hog development.

Hog Premium Policy

Associated with the grading policy since 1944 has been the government premium policy whereby premiums of $2 and $1 per hog are paid on the two top grades - direct to producer - by cash warrant attached to grade certificate.

Grading of Pork Cuts

Like yourselves, we have given much thought to other possible activities to bridge the gap between producer and consumer with respect to consumer requirements. We can grade and mark a carcass of beef or lamb, or an egg, or an apple with reasonable expectation that the process will benefit both producer and consumer. We cannot do this with a hog carcass. At least we have not yet found it feasible to relate directly the grade of a pork cut with that of the carcass.

This has been the cause of much controversy arising from both groups. The producer says it is not fair to grade the hog for his own settlement and then let the processor go free with his product. He says my Grade C hog comes out of the plant as a top grade product. The consumer (CAC) says we want our pork products government graded the same as beef.

Gradually both groups are being educated as to the problems involved. How do you grade a pork cut as to fat content unless you cut it into small pieces? Can you make use of specific gravity, ultra-sonic methods, or light reflection? Probably science will provide an answer in the years ahead.

It is true, however, that gradually increased trimming and defatting practiced by the processors in preparing the retail cuts has tended to standardize the general quality at a fairly high level and thus reduce the need for government grading.

We have done a little research on the grading of sliced side bacon for leanness. This seemed to be one pork product which would lend itself to grading and most consumer complaints about pork were directed at breakfast bacon. We set up a tentative standard for one grade only (Canada Grade A Lean) which was somewhat leaner than the average of packer's top brands. The standard, which called for 30 percent lean in a slice with a fair intermingling of the fat and lean, was based on preference surveys conducted at a couple of exhibitions where some 8,000 consumer opinions were obtained.

This graded bacon was then placed on sale in one supermarket in each of three cities, along side the regular brands carried, and at a small price premium (6 cents per pound) over regular top brands.

In brief the project seemed to prove that it was practicable to have sliced bacon graded according to uniform standards in various plants, and that a considerable number of consumers were willing to pay a premium to get uniformly extra lean bacon. One of the problems was, what would happen in the merchandising of the remaining bacon if all the Grade A Lean was taken out and sold separately. No conclusions about the usefulness of government grading of sliced bacon have yet been reached.

Production Policies

A word on two of the more important parts of the production program might be appropriate before concluding.

A pig testing policy called Advanced Registry for Swine has been in operation for many years. This involves a slaughter test on four pigs from a nominated litter. There are a number of feeding stations across the country operated by the Department where most of the test lots are placed on feed. The dam of the litter is given a three part rating - on size of litter, feed per pound gain, and carcass excellence. Boars are rated on the number of qualifying litters sired.

A fairly recent project has been the development of the new breed, Lacombe. The objective was to produce a breed with a different genetic background from the Yorkshire, which now predominates in Canada, and which would be suitable for crossing with the Yorkshire. While there are not yet many of the Lacombe breed available for general distribution, results to date are encouraging (Chester-Landrace X Berkshire, former from U. S.).

Among our fairs and exhibitions most prize lists restrict the breeding classes to bacon breeds, and many feature carcass classes for market hogs. There are two such classes of long standing at the Royal Winter Fair, Toronto, and also at this Show prize money in the breeding classes is augmented when the individual is qualified for Advanced Registry or has a qualified sire or dam.

SUMMARY

In conclusion it may be said with respect to the marketing aspects of the Canadian Hog Program that:

1. Settlement to the producer on a quality basis through the medium of official carcass grading has been generally practiced since 1940.

2. It has been a factor in considerable hog improvement in the case of various areas and a great many individual producers.

3. More general improvement is anticipated as hog producers realize that more top quality is necessary to compete with beef and poultry meats.

4. It is hoped to accelerate this improvement through some revision of carcass grades and more cash incentive on the top grade.

CONCLUSION

Since I understand this conference is especially concerned with State programs I might state in conclusion that practically all provincial departments of agriculture have policies to assist bacon hog production. Some are joint federal-provincial schemes and many are entirely provincial. Some compliment federal policies such as bonuses for good performance under grading or pig testing.

PROGRESS OF RESEARCH IN POINTING THE WAY TO NEEDED IMPROVEMENTS IN MARKETING MEAT-TYPE ANIMALS AND THEIR PRODUCTS

George F. Henning
Ohio State University

In discussing this subject, it seems desirable that we first take a quick observation of our per capita consumption of meat in this country.

Table 1.--Per capita consumption of red meats and poultry averaged by periods for the United States

Period	Beef	Veal	Lamb and Mutton	Pork excluding Lard	Total red meats	Poultry 1/
	Pounds					
1920 - 1929	56.6	7.7	5.4	68.1	137.8	20.6
1930 - 1939	53.8	7.7	6.8	62.3	130.6	21.0
1940 - 1949	60.4	9.5	6.2	71.2	147.3	28.6
1950 - 1957	73.9	8.6	4.3	66.6	153.4	2/ 34.2
1958	80.5	6.8	4.1	60.5	152.0	40.0

1/ This includes chickens, broilers, and turkeys on a dressed weight basis.

2/ Partly estimated for recent years.

An examination of this table points out that beef has been expanding. Lamb has been declining, although it never was very large; pork expanded somewhat during World War II, but has declined during recent years; and poultry meat has expanded outstandingly. The per capita consumption of all red meat for the past three or five years has increased considerably, 10 percent or more depending on years selected over the pre-World War II figures. It must not be ignored that total meat consumption in tonnage has increased much more due to our increase in total population, which at present time is approximately 3 million annually.

With this trend away from pork developing, researchers started since World War II to investigate and study the problems associated with this swing to other meats.

One of the first research projects was the North Central Regional study, Number 30, on "Objective Carcass Grade Standards for Slaughter Hogs," published as Bulletin 414 of the Minnesota Agricultural Experiment Station. The principal result of this study was to point out the relationships that existed between the amount of fat produced on a hog correlated with the four lean cuts, (ham, loin, picnic, and butt). From this research, came the desirability of changing our approach to marketing hogs.

Ohio's contribution to this regional project emphasized the importance of live grading hogs into classes that would give carcasses of high, medium, and low value. While it was realized that buying hogs on a carcass weight and grade basis would be more accurate, Ohio researchers recognized the inertia of the meat industry and its objection to carcass grading. Ohio research showed that swine carcasses of high value No. 1, medium value No. 2, and low value No. 3 had physical characteristics that could be associated with live grading. 13/ Using this information marketing agencies stepped up the live grading of hogs at country markets and began selling No. 1 meat hogs to the slaughterers.

At about the same time, the Agricultural Extension Service with additional funds furnished by the Federal Agricultural Extension Service started a project whereby an extenstion marketing specialist began assisting marketing agencies in grading and marketing problems of No. 1 meat hogs. This specialist today in Ohio is devoting nearly full time to this work.

Soon livestock auctions commenced to get definitely higher prices for lots of No. 1 hogs. Today many auctions are getting for farmers who produce No. 1 meat hogs, prices that are well above the so-called average price based on No. 2 hogs. This has been summarized in a Master Thesis at Ohio State University by C. C. Bowen.

Unfortunately, some of our eastern terminal markets were slow to recognize price differences between No. 1, 2, and 3 hogs, but today most terminal markets are recognizing value differences for meat hogs. Some term it merit selling.

Some packers at the start of this meat hog program were willing to pay a differential above the bulk sales price for hogs that would grade No. 1. Various price differentials have been used but probably the most common one today is 50 cents over No. 2 hogs.

Some research in Ohio 14/ has explored the area of price differentials that farmers should be paid for No. 1 compared to No. 2 and No. 3 hogs based on the differences in wholesale values of meat cuts. These differentials for recent years and currently are given in Table 2.

13/ Henning and Evans. Market Hogs Can Be Accurately Graded. Ohio Agr. Expt. Sta. Bul. 728, pp. 48 -59.

14/ Henning and Stout. Pricing Hogs Under Present Day Conditions. Ohio Agr. Expt. Sta. Bul. 801.

Differentials it must be remembered are based on accurate grading of number 1's, 2's, and 3's. In day-to-day marketing there are many No. 2 hogs included with No. 1's. At least such are the reports coming back from the slaughterers. Then also a few No. 1's are being graded as No. 2's due to the skills and inaccuracies of grading. You will note, too, for the past years there is a definite seasonal pattern to value differentials (see table 2). In the future, it seems to me, meat slaughterers and marketing agencies must give more recognition to this point. However, the practice of multiple farrowing and more uniform marketings may even out supplies. More uniform seasonal supplies also may influence the seasonality of price differentials in the future. We will have to wait and see.

Table 2.--The monthly differentials in live-weight value per cwt. between grades 1 and 2 and grades 2 and 3 slaughter hogs weighing 195-220 pounds calculated by the Ohio formula, 4-year average (1954-1957), 1957, and 1958 to date.

Month	Grade 1 over grade 2			Grade 3 under grade 2		
	Four-year average	1957	1958	Four-year average	1957	1958
	Cents per hundred pounds					
January	0.63	0.58	0.66	0.77	0.68	0.77
February	.66	.67	.69	.69	.66	.81
March	.67	.62	.89	.71	.67	.86
April	.63	.54	.68	.72	.60	.85
May	.71	.53	.95	.80	.61	.92
June	.74	.73	.95	.81	.73	.95
July	.74	.71	.83	.77	.63	.70
August	.76	.85	.88	.68	.75	.68
September	.72	.78	.77	.53	.42	.49
October	.72	.69	.71	.51	.48	.62
November	.63	.82	1/ .71	.49	.65	1/ .63
December	.53	.61		.46	.64	

1/ Calculated from wholesale prices for November 5. All other prices calculated for the date nearest the 15th of the month.

With this upsurge of interest in meat animals there arose the demand and need for improved breeding stock that would yield good meat hogs. Swine evaluation stations have been established recently in many of the Corn Belt and other States aiding breeders in identifying breeding stock that will produce superior meat animals. These swine evaluation stations have been obtaining valuable information on rate of gains, cost of gains, back fat thickness, amount of fat, yield of primal cuts, and other data relating to carcass performance and production.

These swine stations are helping breeders identify the better breeding stock to find out how differently bred animals perform, rate of gains, feed conversion, etc., and other information that the commercial swine industry hasn't known before.

For example, full sib pairs of hogs (that is full brother and sister breeding) perform differently as shown by the data in table 3.

Table 3.--Ohio swine evaluation data for 90 spring and 89 autumn full sib pairs of hogs slaughtered for 1957

Cut	Average Percentage			
	Spring		Autumn	
	Barrows	Gilts	Barrows	Gilts
	Pct.	Pct.	Pct.	Pct.
Lean cuts of chilled carcass weight	49.9	51.8	50.2	52.7
Ham of chilled carcass weight	18.6	19.5	18.3	19.5
Loin of chilled carcass weight	14.8	15.6	15.5	16.4
N. Y. shoulder of chilled carcass wt.	16.5	16.7	16.4	16.8
Belly of chilled carcass weight	14.4	14.3	14.1	13.7
Fat trim of chilled carcass weight	23.1	21.2	23.1	20.7
Average back fat (inches)	1.6	1.5	1.6	1.5
Carcass length (inches)	29.9	30.3	30.0	30.2
Loin eye 10th rib (sq. in.)	3.4	3.8	3.7	4.2
Average daily gain (pounds)	1.77	1.62	1.79	1.66

Some recent data from the Ohio swine evaluation station shows that gilts are not as fat as barrows. Gilts have a higher percentage of lean cuts to carcass weight which means more ham, loin, and N. Y. shoulder. Gilts have a larger loin eye, a slightly longer carcass, and a larger trimmed loin, and put on gains slower, 6 to 10 days, to reach 210 pounds.

This information shows that performance standards must be considered separately for barrows and gilts; that more barrows may not meet present grading standards for No. 1 hogs compared to gilts. Since these pairs were fed together we don't have barrow and gilt feed conversion, but is our guess that the barrows are better feed converters than the gilts.

Size of loin eye varied greatly for the 1,684 loins, table 4. Since loin eye is an important factor related to the total pounds of loin and to the total pounds of lean cuts that may be obtained from a carcass, then breeders should note that less than 35 percent of 1,684 loins had loin eyes of four square inches or more. Our future swine seed stock needs definite improvement in this respect.

This information coming from the swine evaluation stations is important now to swine breeders. It takes time to establish superior breeding stock that will produce a high percentage of No. 1 meat hogs that have a large percentage of primal cuts to carcass weight.

CONSUMER

Next let us turn to the consumer and note how the consumer responds in purchases of the meat from meat-type animals. Today this is important in agriculture.

Table 4.--Loin eye measurements at the 10th rib from the Ohio Swine Evaluation Station, Fall 1954 through Spring 1958

Size (in square inches)	Number of loins	Percent
Under 2.49	13	0.77
2.5 - 2.99	150	8.91
3.0 - 3.49	447	26.54
3.5 - 3.99	534	31.71
4.0 - 4.49	368	21.85
4.5 - 4.99	135	8.02
Above 5.0	37	2.20
Total	1,684	100.00

What are the quality standards desired by the consumer and will the consumer pay a sufficiently higher price to warrant a price premium for meat cuts of meat-type animals?

At the present time, there are 16 experiment stations with 19 projects working on consumer preferences, acceptance, and merchandising of meats and five stations with five projects directed to maintaining and improving quality.

H. E. Larzelere and R. D. Gibb, 15/ Agricultural Economists at Michigan State, conducted some consumer studies started during 1956 and have continued into 1958. This research was carried out with a panel of 100 or more consumers in the Detroit area whose incomes varied from $2,000 to $10,000 annually. This group of consumers at the same prices preferred good color pork chops with 1/8-inch fat cover, compared to poor color pork with 3/8-inch fat cover. Consumers generally preferred the chops with less fat although color and other factors influenced their decisions. There appeared to be small or no differences between income groups although the panel was probably too small in the opinion of Larzelere and Gibb to study this characteristic. The use of price differentials changed the choices of panel members and appeared not to be conclusive depending upon the amount of the price differential.

During 1957 and 1958 the Purdue Agricultural Experiment Station has worked on a project to determine if consumers will pay more for meat-type pork than regular pork. This study was partly financed by financial aid from the Producers Livestock Marketing Association of Indiana, Producers Swine Improvement Association, and the cooperation and assistance of the Emge Packing Company at Anderson, and Marsh Foodliners, retail food stores of Yorktown.

15/ Larzelere and Gibb. Consumers', Opinions of Quality in Pork Chops--Quarterly Bulletin, Mich. Agr. Expt. Sta., Nov. 1956, pp. 327 - 333.

Stevenson and Smith, Department of Agriculture Economics at Purdue, recently reported on this study, 16/ "that consumers bought 6 percent more meat-type pork than "regular" pork at the same price, but when consumers could choose between regular pork at a lower price and meat-type pork at a higher price they spent 40 cents of their pork dollar on meat-type pork and 60 cents of their pork dollar on regular pork. Meat-type pork shoulders outsold regular pork shoulders by 5.6 percent. Nine percent more meat-type bacon and 13 percent more ham was sold. All cuts considered meat-type pork sales showed a comparative increase of 6.1 percent over regular pork when the prices for meat-type pork were the same as for "regular" pork.

Another study concerned with consumers acceptance of pork was carried on by C. E. Trotter, Agriculture Economist of Pennsylvania Experiment Station, and Gerald Engelman of Agricultural Marketing Service, USDA.

Some of their conclusions were reported recently in Science for the Farmer as follows:

(A) "Conclusions that could be drawn from these results are: (1) differences among the cuts were too small for customers to recognize visually while shopping; (2) customers were unobservant or indiscriminate in making their pork purchases; or (3) some may have preferred leaner cuts, while others may have preferred more fat, and both of these groups were willing to pay for what they wanted. Each of these conclusions may be partially true.

(B) "Results from 1,100 interviews indicated about 40 percent of the customers did not notice that differences in grade or price existed. About 30 percent mentioned price differences and about 30 percent mentioned differences in lean and fat. Apparently about one-third of all customers selected pork chops or steaks primarily on the basis of lean and fat with little consideration of price, while one-third chose on the basis of price with little regard for lean and fat content. In this test, all cuts were given a standardized trim of external fat."

Trotter, in a letter of November 12, 1958, further commented:

(C) "As a result of our test I would conclude that present carcass grades are not satisfactory for segregating primal cuts into grades. We did not gather quantitative data on this in our test, but all personnel associated with the study commented on the great variability of cuts within a grade. The size and shape of principal muscles and hence the proportion of lean to fat was very variable among cuts derived from a given carcass grade. If

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16/ Stevenson and Smith. Will The Meat-Type Hog Pay Its Way? Economic and Marketing Information, Purdue Agr. Ext. Serv., Lafayette, Ind., June 27, 1958.

pork is to be retailed by grade, either the primal cuts must be graded individually or selection and breeding must develop hogs that will be more uniformly muscled so that carcass grade and appearance of primal cuts are more highly correlated.

"My own conclusion is that any price differential that accrues to the producer will come from the wholesale level. Carcass grades are valid for sorting carcasses on the basis of over-all cut-out value. As retail cuts have more and more external fat removed, the differences in value among carcass grades are increased."

R. O. Gardner and E. A. Kline at Iowa State College, found that "the meat-type hog produced a ham that sold faster (prices were the same for hams from the No. 1 and No. 3 hogs) even after some external fat was trimmed from both types of hams. Even after trimming there was more observable fat on ham slices from No. 3 carcasses than on slices from No. 1 carcasses. We don't,however, know what the results would be if the leaner hams were sold at a higher price per pound than hams from the fat type hogs."

Researchers at Missouri found that consumers preferred pork leaner than now specified in the choice No. 1 U. S. Grade. 17/ Bacon and chops obtained from medium grade pork carcasses were preferred by 55 percent of the consumers who cooperated in the study, when the prices per pound were the same. About equal numbers preferred the choice No. 1 and medium hams before cooking, but after cooking a majority preferred the medium ham.

This group of Columbia, Mo.,consumers stated that bacon, pork chops, ham, and roasts were the pork cuts customarily purchased. They also indicated that 75 percent preferred beef to other kinds of meat. However, on the other hand, 20 percent gave pork as their first preference.

The major reasons for their preferences before cooking for bacon, hams, and chops from the medium hogs was leanness. Those consumers that preferred bacon, hams, and chops from the No. 1 choice hogs indicated freshness as their major preference. Color was an important factor for chops and hams.

Missouri researchers, Kiehl, Rhodes, and others, in working on a current project of pork grades to consumer acceptability have found, "that pork cuts from 150-pound hogs are quite lean and very desirable to consumers. Average weight of the separable fat was 33 pounds for the 200 pound hogs, but only 21 pounds for 150 pound hogs. Reducing slaughter weight from 200 to 150 pounds, or 25 percent, would reduce the separable fat 36 percent, but would only reduce the weight of the four lean cuts (ham, loin, picnic, and butt) only 23 percent and the loin eye area by only 17 percent."

This research work brings out the possibility of marketing hogs at lighter weights--reducing the amount of fat produced and giving the consumer a more desirable product.

17/ E. Birmingham, D. E. Brady, S. M. Hunter, J. C. Grady, E. R. Kiehl. Mo. Agr. Expt. Sta., Research Bul. 549. 1954.

Now let us turn our attention briefly to beef. In a study by Missouri researchers 18/ on the visual preferences for beef it was found that "the order in importance of consumer preferences for the various physical attributes of beef roasts influencing grade preferences was:

(1) Amount of internal fat (other than marbling), (2) color of lean, (3) amount of marbling, (4) amount of external fat, (5) color of fat, (6) amount of bone. The order in importance of the attributes of beef steaks was (1) amount of external fat, (2) color of lean, (3) marbling, (4) texture, (5) color of fat, and (6) amount of bone.

"Answers to questions concerning consumer desires showed that tenderness was the eating characteristic of steaks and roasts most desired by a majority of people. Tenderness was most often named as the characteristic found lacking in roasts and steaks. Almost 25 percent of the respondents tenderized roasts and 40 percent tenderized steaks. Few respondents liked rare roasts or steaks. Dry heat methods were the most popular methods of cooking roasts and steaks, though 31.6 percent of the respondents pot roasted their roasts, and 35.7 percent fried or braised steaks.

"Consumer dissatisfaction with beef--especially regarding tenderness--is an important problem. The problem is complicated by an aversion of many consumers to fat. Meat retailers have sometimes described the consumer as wanting an impossible combination of leanness, juiciness, tenderness, and flavor. The emphasis for a majority of the respondents was on tenderness and leanness, which is not an impossible combination for certain cuts.

"Perhaps, this combination can be obtained from lean carcasses of young cattle and by tenderizing the lean carcasses of older cattle. The solution of this preference problem by production or processing, or both, should increase consumer satisfaction with beef and thereby increase returns to producers. A grading system that is more concerned with consumer preferences would probably help solve this problem and aid consumers in obtaining their preferences."

Missouri researchers in another study 19/ found that consumers liked their beef regardless of grade after it had been eaten. "Consumers indicated that all who had purchased prime steaks, 92 percent of choice, 70 percent of the good, and 90 percent of the standard beef steaks were satisfactory. Satisfaction with their purchased roasts was expressed by 88 percent of the purchasers of prime, all purchasers of choice, 90 percent of the purchasers of good, and 95 percent of the purchasers of standard roasts.

"Why did these consumers like their beef steaks? Because primarily, the beef was of good flavor, secondly, it was tender, and thirdly, it was juicy.

18/ V. J. Rhodes, E. R. Kiehl, and E. E. Brady. Visual Preferences for Grades of Retail Beef Cuts. Mo. Agr. Expt. Sta., Research Bul. 583, pp.64-65.

19/ F. G. Lasley, E. R. Kiehl, and D. E. Brady. Consumer Preferences for Beef in Relation to Finish. Mo. Agr. Expt. Sta., Research Bul. 580, 1955, p. 19.

The few that did not like their beef indicated it was because of toughness in the leaner grades or too much fat in the choice and prime grades."

Most of this discussion has been concerned with swine and pork since beef has not had similar problems of consumption. Likewise, the grades of beef cattle carcasses, although subjective other than weight differences have reflected grade price values reasonably well to the farmer. These prices may have been too inaccurate at times and could be improved, but on the other hand, farmers for example are paid accordingly for good steers as compared to prime or top choice. These differences are reflected from the consumer back, through the retail and wholesale markets to the farmer.

With cattlemen the problem of producing better meat animals seems now to be centered on improved production testing methods. In this manner meatier animals can be identified, if followed through to slaughter. A tremendous amount of fat, however, must be trimmed off beef carcasses to make them suitable for consumer acceptance over the retail counter. The fat problem is important to beef men just as it is to swine men. Therefore, the identification and development of breeding stock of the meat-type is important to the beef industry.

As we look forward the breeders of livestock and the animal geneticists have a real challenge to give agriculture, the meat animals that are now and will be demanded by consumers. To some of us it seems very important that a good portion of our future protein needs come from livestock rather than other foods. Stated another way, with our feed crops in surplus as they now are, livestock are the best utilizers of feeds, legumes, and grasses. To me it seems important then that we produce real meat animals that are desired by the consumer and maintain and develop a marketing system that will reflect the desires and prices paid by consumers back to farmer producers.

CONCLUSIONS AND RECOMMENDATIONS

On marketing improvements needed to promote meat-type hogs and cattle

In the discussion of this subject, it was pointed out that the per capita consumption of pork in the United States has been declining both in absolute and relative terms in recent years. Gains in beef consumption, however, have more than offset the loss in pork and total per capita consumption of red meat has shown some increase. Poultry meats have made phenomenal percentage gains, in recent years, probably much of which has been at the expense of pork.

A representative from the Canadian Department of Agriculture told the group that Canada faced a somewhat analogous pork problem in the early 1920's when it appeared Denmark would capture the English bacon market. Under the threat of the loss of its major export market, the Canadian government and swine industry developed a coordinated production and marketing program to encourage a shift toward leaner-type hogs. At first the program was largely voluntary; later on incentive and regulatory features were added and a carcass grading system was established in an effort to speed up the rate of progress. The improvement in pork quality made by Canada under this program enabled it to compete successfully in the English market. Canadians also liked this meatier pork and they now consume most of the pork produced in Canada, leaving little for export.

Doubt was expressed by some members of the group that the Canadian carcass grading system would be practical in the United States in view of the way hogs are assembled here and distributed to slaughterers. On the other hand, the discussion brought out that "merit" buying of live hogs is being practiced today and should be expanded. Research has shown that the different grades of slaughter hogs, based on U. S. standards, do vary significantly in carcass values and that the degree of correlation between live and carcass grades attainable by trained and experienced graders is such as to make the live-grading system practical. It was suggested that a State department of agriculture might assist in the development of a merit buying system for hogs by setting up a demonstrational live-grading program in cooperation with some packer in the State. Another suggestion was that State departments of agriculture, the agricultural colleges, farm organizations,and others interested in the meat-type pork problem get behind an all-out effort to induce packers to initiate or expand merit buying on a national basis this next year. The point was made that supply conditions would be more favorable next year for packers to institute price differentiation based on quality than during the past few years when they have been under considerable pressure to secure volume for plants operating under weekly minimum hours, labor contracts. This suggestion, however, did not evoke much response from the group.

APPRAISAL OF THE CHANGING LIVESTOCK MARKETING STRUCTURE

Elmer R. Kiehl
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The purpose and theme of this Conference is the examination of the livestock marketing system and to consider possible improvements. All of us are aware of the dramatic changes taking place in the production of livestock and also of the apparent changes on the demand side for our products in terms of preferences for meats by consumers. We know also that the marketing procedures that have been developed in the past are under attack. Livestock marketing has been undergoing rather rapid changes structurally since 1925.

Questions are being raised whether or not these changes are "good" or "bad." Evaluation in these terms is natural because all of us tend to attach a value to the older systems or ways of doing things. These evaluations, often without our realizing it,are essentially ethical or moral values of "right" and "wrong." Therefore,a change from what we are accustomed to is often viewed negatively.

Examination or evaluation of the livestock marketing system implies that we have a value or measurement technique, one that can be applied as a yardstick or as a scale for use in testing or measuring. In this discussion of examination we are forced to use an economic measuring stick to appraise these changes. One of the major reasons is that we are dealing with factors and a market structure in a social system oriented around prices and markets. Consequently economic evaluation must be the major measuring stick of the structure although other evaluation systems are involved as well.

For the term market structure I have adopted a simple notion similar to that of a building or structure designed with many parts, each contributing something useful. The market structure is composed of "bricks and larger stones" and doors and passageways" which are involved in functional processes of moving animals from farms, transforming these animals into meats and by-products, and moving these products to consumers. The stones, bricks, doors, and passageways in this structure include the services of all the agencies which provide services throughout the long physical process of marketing. This marketing structure, however, in contrast to a single building has parts located geographically over the entire country.

Our current interest in market structure is really the relationship of the various parts of the structure to the whole system. Some people have said this structure is obsolete, that some of the bricks or stones no longer serve a function. Since change is the essence of our system, stimulated mainly by technological change, we as individuals and as members of the livestock marketing industry must be on guard so that we don't "sanctify" and render as "untouchable" those aspects of market structure that happen to be "near and dear" to us. Forces calling for readjustment are all about us.

Let us sketch the elements of this structure. First of all, this structure is a big business in the aggregate. Meat animals contribute about one-third of the cash income to farmers in this country. Cash receipts for marketings of meat animals amount to roughly $10 billion with hogs contributing about $3 billion.

The organization and structure of livestock marketing grew like Topsy -- "just growed." Its growth represents the slow adjustment through time to basic technological, locational, and demand forces. It might be well to sketch the development of this structure.

I believe it useful to sketch very briefly the early development of markets. The early livestock markets in Colonial days were quite simple. There were little surpluses for sale. Most trade between farmers and villagers was in cured meat products on a barter basis in exchange for other items. Some specialized livestock markets developed in response to West Indies trade or government army contracts. Brighton Stockyards, for example, developed as a result of a British army contract at the time of the French War (1756). The population,at the time of the Revolution,of the largest cities was less than 25,000. Meat requirements of the cities were accommodated by the supplies nearby.

With the push of the frontier westward over the Alleghenies resulting in the separation of major production areas and growth of seaport towns, livestock market centers began to develop. Cincinnati became a major market center by 1840 based largely on river transport. Many cattle were driven east over the mountains to markets at Baltimore and Philadelphia.

It was not until railroads were built that major markets in this area were developed. Driving livestock raised in the newly opened territories to the nearest railpoint was the common pattern. By the time of the Civil War, livestock markets were set up at major rail transfer points. Packing plants were established nearby. In 1865,the Chicago Union Stockyard was organized. Similar stockyards and packing facilities were built at other major rail centers and terminals in the next 25 years. By 1900 most of the major terminal livestock market facilities were "in place."

For the next 25 years, these types of markets were dominant and represented the adjustment of market structure to rail transport, resulting from separation of production centers from the growing population centers.

We might take a look at the structural organization of livestock markets at about 1925. This complex system might be viewed as an hour glass lying on its side.

The task of marketing meat animals is one of assembling and concentrating the production from millions of farmers. Various agencies are engaged in these activities. Important, of course, are the transportation agencies which transport many small lots of animals from a large geographical area to concentration points or public stockyards. Meat animals thus concentrated pass through a relatively narrow orifice in terms of the numbers of physical plants in the processing stage. Here the highly perishable raw material, the livestock itself, is disassembled into various wholesale and retail products.

After this functional step, the products are dispersed over time through storage and space to 175 million consumers. Involved here again is transportation, and the various agencies, the wholesalers, retailers, whose final task, instead of concentrating the product, is to distribute and disperse it to millions of consumers.

This system operates the year round. It takes as raw materials roughly 38 million cattle and calves, 85 million hogs, and 15 million sheep and lambs every year. Its major end product is, of course, meats - 27 billion pounds enough to provide approximately 160 pounds per person in this country.

Price making forces for livestock and meats pass back from the consumers through the various agencies, namely, retailers, meat wholesalers, packers and finally back to the producers. While this is true, we want to remember that there are forces of monopoly present throughout the system. This primarily takes the form of retaining margins (which may or may not be excessive and depends on the nature or type of agencies) because of location or time advantages they individually may have in exploiting these possibilities.

This was the picture about 1925. There was probably more specialization in the livestock industry in this country compared to any other country in the world. This structure was the product of change and progress primarily by (1) Changes in technology in transportation, processing, and storage, and (2) a large geographical market for meat products with areas of population density far from production areas. In fact this structure was unique in the world.

Development of railroads first revolutionized the industry, leading to development of terminal livestock markets and large packing concerns. Development of refrigeration enabled year-round packing operations. Later refrigeration was successfully applied to railroads and trucks. New assembly line techniques were developed by packing firms. All of these had a tremendous effect on the location and the size of business in the packing industry.

You might think with this grand structure that all problems have been solved. Many problems remain, however, in livestock production, as in feeding and in disease control; in marketing livestock, such as bruise and death losses; in processing, such as preservation and handling of meats all the way to the retailer. One must always keep in mind that both the raw materials, the livestock, and the major end product, the meats,are highly perishable.

Since 1925,there have been rather gradual but important changes in structure. Decline of shipping associations, growth of auction and many smaller markets result from flexibility in transport encouraged by trucks and improved roads. These are the changes we are most familiar with as they have occurred in the last 30 years. These are the changes in structure which give some of you concern.

How do we evaluate these changes? As indicated earlier, economic criteria, imperfect as they are in application to real problems, will have to be used. We might use two criteria in appraising market structure.

1. Operational efficiency
2. Pricing efficiency

Operational Efficiency

In the context we are using operational efficiency, it means getting the "mostest for the leastest." Elaborating on this term, it includes the assembly and handling of animals with the least possible number of men, the least amount of transportation and facilities. It includes efficiency in the physical sense with which the bargaining process at all stages of the market is accomplished; the efficiency of processing and the movement of meat through all the channels to final consumers.

Efficiency in this broad sense means simply how well the entire system is accomplishing the task of converting animals to meat and meat products and moving these products to consumers.

In order to attain maximum efficiency, that is, accomplishing the physical tasks at minimum costs, each firm or agency must be operating at optimum level. Cost per unit of livestock handled is partly a function of the volume handled. Rapid decentralization has occurred in recent years. A market structure composed of many small markets, other things being equal, obviously will have higher total average costs for the system as a whole. This applies to livestock assembly points, dealers, auctions, as well as meat processors, wholesalers, and retailers.

Pricing Efficiency

Another aspect of efficiency is that of pricing efficiency. This concept usually is used in a very broad context. Essentially it means that preferences of consumers (buyers) for different products are reflected in prices of these products in the marketplace. The prices in the marketplace in turn give guidance to producers of these products as to how much of each type of product to produce.

If the prices in the marketplace truly reflect buyer preferences, then producers can communicate through prices with consumers and vice versa. If prices in the marketplaces at the different levels in the structure are mumbo-jumbo, the contact between producers and consumers is broken. The signals given by consumers then are lost in static interference and producers may continue to produce too much of the wrong kinds of products to the detriment of the whole industry.

We are assuming three grades of hogs, A, B, and C for which there are three major groups of consumers, each having fixed preferences for each product. Furthermore, they are willing to pay differential prices for each grade of hog. Let us assume that consumers in aggregate would be willing to pay $25 for 40 percent of the hog production of A-type; $22 for 30 percent B-type and $19 for 30 percent C-type. But assume producers are now producing 10 percent A-type; 30 percent B-type and 60 percent C-type.

Now let's assume that in the marketplace, and this includes both sides of the bargaining process, the packer buyers and commission men and/or livestock dealers fail to be responsive to consumers. Let's say the buyers offer essentially an average or mine-run price for hogs at $22. What guides do the producers have with this price to get A-type hog production increased from 10 percent to 40 percent. Here the burden of sensing what consumers want rests with buyers--the packers. Now assume that buyers--the packers being nearer to the consumer and are presumed to know preference more accurately (which I doubt)-wanted to and were willing to pay more for A-type hogs. Packers will continue to offer $22 hoping to get as many A-type hogs as possible to fill their demand for A-type pork. Only if those on the selling side do an effective job of sorting the mine-run production into A, B, and C types can the preferences of consumers even be partially fulfilled in terms of quantities of A, B, and C types desired. Sellers in this case seem to prefer to sell shirts of various neck size and sleeve lengths, yet there are buyers who want a shirt of a specific neck size and sleeve length. Could one of the reasons for market decentralization be that buyers can be more selective in their procurement?

I want to be the first to suggest that this is a much simplified illustration of the role of markets in pricing efficiency. Involved are many complications. One is accuracy of present grade standards of meat animals in terms of consumer and buyer preferences. We have much more to do before this problem is solved. Even if we can precisely differentiate the total population of, say, hogs in terms of relevant consumer preferences, their application becomes complicated by the nature of processing and handling of these meats in market channels. And we shall see great changes in processing and handling of meats in the future. The success attained by market news reporting hinges on the accuracy of grade interpretations on the market by sellers and buyers and finally by producers themselves.

Despite these and other qualifications, the broad outlines of the role of pricing efficiency illustrated is essentially accurate. The market, or market system which solves this problem and organizes to do this job better will get an increasing share of the farmer's business. It will be to the farmer's interest to patronize that market which can adapt itself to provide this type of efficiency.

In this matter of establishing a price for a given grade many, many factors are involved. One measure of the market's ability to reflect the value on a given grade on a particular day is the range of prices obtained for that grade. Let's look at the problem of establishing a price for a given grade. Let us assume that at market A, prices range -50 to +50 cents about the average of the prices for that grade and that at market B prices fluctuate -25 to +25 cents about the average. If market B prices reflect the "true" supply and demand conditions, Market A obviously is less efficient in price establishment. Some producers are being penalized and others overpaid in terms of the underlying supply and demand conditions. Take the case where the range in prices at the A market is as wide but they vary above the average for Market B. This situation can and does happen in short-run. Special conditions of demand in the local market area could result in such conditions but would not remain. A more typical situation is that where the range in price of A is similar as in other cases but the average is below that of Market B. The mean difference here could be represented by differences in real costs of transportation and/or other factors. While these are hypothetical cases, the implications for competition among types of markets under the different circumstances are clear. Markets in competition with one another need to be aware of improvements others make in order to adjust themselves competitively in efficiency. And in any trade area the circumstances will vary. In the last case illustrated is where Market A has the same range in price variability as Market B. It has improved in price efficiency and becomes an effective competitor with Market B. If differences in location are assumed to favor Market B, then Market A is by far the superior market now that it has reduced its price variability.

Livestock producers are interested in knowing the pricing efficiency of the various type markets available to them. They cannot make intelligent choices among markets unless they are aware of them. With decentralization has come a great need for market news information of the local market. Convenience and transportation costs will enter in the decision process of livestock producers. The least that can be done is to provide them information concerning how well each type of market is performing. Inefficient markets in the price making process will pass out of the picture if producers (their customers) have improved knowledge on which to make their choice. They will patronize those markets best for their own location, preferences, and circumstances.

The ultimate degree of pricing efficiency is dependent on application of grade standards which have meaning to buyers. For slaughter animals this means grade standards which give consumers consistent guides to eating satisfaction. Developing and defining grades both for live animals and meats to this degree will require considerably more research effort than we have committed to date.

Factors Affecting Efficiency

Many factors affect efficiency in the operational sense. Most crucial is size of physical facilities in numbers of hogs handled. Small units obviously are expected to have higher costs. If a market operates only one day per week the fixed costs must be carried by that single day's operations. Seasonal operations similarly affect unit handling costs for the same reasons.

There probably is an optimum size of market in a given area in relation to density of swine population. In some Iowa counties hog population in terms of annual sales exceeds 300 hogs per square mile. In some other counties it is less than 100. The optimum size and type of market is related to hog population density.

Pricing efficiency is affected by market knowledge, accuracy and application of grades and standards, accuracy and adequacy of market news information. Carry-through the entire system is quite essential if attainment of some degree of pricing efficiency is to be achieved.

This is a most complex problem and very difficult to evaluate an entire structure composed of many market agencies each performing different services in different locations and through a period of time. It is no less a task to analyze the hog marketing situation in a particular locality.

Take, for example, the adequacy of local market structure involving two packing plants each operating at assumed levels. In a "normal" year their supply areas for hogs just meet and producers in both areas are adequately served. Let's assume a great increase in hog supplies due to seasonal or cyclical influences. The size of necessary area to obtain the same supplies for each plant shrinks. At a given level of output of both plants, producers in between have "lost" in a sense their local market. It is in these situations that we have wide swings in hog prices at the local level. The question arises should producers in this area support a larger terminal market which can absorb more readily great variations in supplies. Is the cost of maintaining such facilities offset by the possible gains?

Forces of Change

Any suggestions of improvement in structure to render it more efficient in both the operational or pricing sense is bound to encounter the problems of measuring and accounting of the future impact of impending technological change. You see we could conceivably set up the ideal model and have it render less than optimally efficient through the interacting forces of technological change arising from many factors. In other words we could set up an ideal system and have it rendered obsolete by the time we're through building it.

Production techniques certainly will affect the nature of marketing structure. Large-scale hog production farms will, no doubt, bypass many of the market agencies we now have which are designed for small unit operations. Livestock density in a given area will be affected by the development of large-scale units. Insofar as large-scale units shift to other areas, livestock density in the whole area may be materially reduced. New developments in means of transportation and also the relative cost of transportation can affect the structure and location of various marketing agencies. As population growth takes place and the tendency of concentration of population in a few centers, the distance between production and consumption will likely be further increased. Preservation techniques now in the laboratory stage can very directly affect the market structure. For example, frozen meat distribution will materially affect meat wholesaling and retailing. The great pressure to design product at the retail level and the use of criteria more precisely correlated with consumer preferences may mean that we will have to revaluate our present grades and standard criteria.

These forces of change interact with one another and all will undoubtedly affect the nature of swine marketing structure in the immediate period ahead. However, adjustment lags of various types will retard the speed of adjustment to these forces of change. Capital already invested in existing facilities is a force retarding investment in new type of market facilities. There is a time lag and a host of institutional factors which reduce the speed of adjustment.

In the light of the preceding discussion on the possibility of bargaining arrangements by producers, I believe that future bargaining arrangements will be more localized in character in terms of actual contractual agreements. A number of possibilities exist. All of these and many more are being considered by various elements in the market structure. Market pricing as we now know it under these arrangements will be of an entirely different character. Speculation as to the form of these contractual arrangements is quite varied at the present time. Producers naturally have a great interest and concern in these arrangements.

It is possible that new production and marketing complexes may be developed. In other words, it is possible that integration of production and marketing processes in an area might develop to be the major pattern. Producers, feed manufacturers, and processors, along with retailers, might jointly arrange contractually the integration of production and marketing. These arrangements are developing in form in specialized broiler areas. In terms of hogs and/or cattle arrangements these may develop in deficit meat consumption areas. It is unlikely that we shall see much development of these specialized arrangements on an area basis in the midwest because of the opportunities for enterprise complimentarity. Nevertheless, these arrangements bear considerable study on the part of producers and market agencies in this area.

Appraising the structure of markets for hogs becomes rather complex. Researchers in this area have not come up with a simple system of evaluation of the total. The best that can likely be done is the analysis of local situations and evaluating them in the light of general criteria. It appears quite logical that producers are interested in that structure at the local level which:

1. Minimizes the cost of physical handling of animals and processing these into meat and meat products. This means optimum size markets, meat packers, wholesalers, and retailers. This is the goal which we shall never attain.

2. Producers are interested in that size agency that does not jeopardize pricing efficiency. Large livestock markets apparently have difficulty in sorting hogs adequately. On the other hand, markets can be too small in order to have outlets suitable for the type of animals received on any particular day. Size of market agencies affects competitive relationships between agencies. The pressure is on us through forces generated by large-scale retailing that requires us to place more importance on grades and standards.

At the risk of over generalizing, I believe that several facts stand out in our present structure.

1. That a large proportion of our present markets are too small and are high-cost markets.
2. That nearly all types of markets have not pushed to the practical limit of sorting and grading livestock.
3. That improvements in structure will be made as the forces calling for change are fully activated.

We shall likely see the further development of mixed types of structures. For example:

1. A more decentralized system in S. E. United States.
2. Production marketing complexes in feed deficit areas -- and particularly near population centers.
3. A mixed system in the Corn Belt area.

In summary, the market structure for livestock and meats is being pounded on all sides by improved technology in all fields. These are the fundamental forces. There is always the danger that we don't want to look at the fundamental forces in cold detachment. Rather there is a tendency for all of us to allow traditions and old allegiances to influence decisions and actions that may prove harmful. There are real challenges and opportunities ahead of us. We must anticipate possible future forces that will affect what we do today or tomorrow in promoting improvements on our present structure. It certainly is not the worst structure in the world, nor is it as efficient as it could be. It can be improved. Its improvements are in our hands. It requires understanding, patience, and working together - of all agencies, markets, processors, and hog producers - and is partly dependent on which goals the livestock industry wishes to achieve.

ADJUSTING LIVESTOCK GRADING PROGRAMS TO MEET CHANGING MARKETING CONDITIONS

C. P. McClaugherty
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I know of no better way to handle this subject than to give you a brief history of Virginia's Livestock Grading Program, which has experienced many changes to meet new and improved methods of marketing livestock, since its beginning in the spring of 1931.

Back in the early thirties, Mr. J. H. Meek, Virginia's Director of Markets, conceived the idea that all livestock should be marketed on a quality or merit basis, which necessarily involves grading. Soon thereafter he asked me to work out the details.

The work that first year consisted of holding lamb grading demonstrations in the principal lamb producing sections of the State, conducted in cooperation with personnel from the Federal and State Departments of Agriculture, the Extension Service of Virginia Polytechnic Institute, Experiment Stations, and the Department of Vocational Agriculture. A few decks of lambs were graded and shipped to the Jersey City Market that first year and followed through to see if the Commission Merchants there would sell them by grade.

When this work was started there was only one auction market in Virginia and little was known of the merits of that marketing system at that time. The only known marketing program was first, by selling to local buyers. Later the second phase consisted of shipping to central markets, either individually, if the volume produced was large enough, or through a marketing agency. During this decade, 1930 to 1940, Co-operative Livestock Marketing Organizations were having their fling, using the second plan of shipping to central markets and selling through commission merchants there. These Co-operative Livestock Marketing Organizations were the producers' own agency. They believed in the principle of selling on a quality basis, and grading fit like a glove into this plan, since it was necessary to commingle ownership of a large number of small producers. Therefore, it was a relatively easy task to sell them on the idea of using a grading service. This arrangement was very expensive, since it was necessary to do most of the grading over farm scales thus requiring a large number of graders, much travel, and lost motion, as compared to the concentrated grading of today.

From the very start and continuing throughout the pioneering and organizational period there was excellent cooperation between all the State and Federal agencies above mentioned. Much of the credit for the success of this undertaking goes to Mr. L. B. Burk, Agricultural Marketing Service, USDA, who is now retired, for his patience and untiring efforts in teaching us the practical application of the United States Standards for Grades of Livestock, and to the Extension Service personnel who rolled up their sleeves, took to the dirt roads, and graded lambs from daylight until dark throughout the length and breadth of the old Commonwealth. This splendid cooperative assistance continued until sufficient personnel of our own had been trained to assume all of the grading. But don't get the idea that the teamwork stopped there. It continues to this day, especially where Co-operative Livestock Marketing Organizations are involved.

In 1937, the third major change in the method of marketing livestock took place; an abrupt switch from consignments to central markets, to direct selling to packers through the newly organized Eastern Livestock Cooperative Marketing Association, and cooperative livestock marketing was riding the crest of the wave. Slaughter sheep and veal were added to the classes graded, the first auction market (Staunton Union Stockyard), requested and was furnished grading service. Graded volume crossed 50,000 head that year.

In 1938, hogs were added to the list using the old United States Standards, the only ones we had at that time, which were principally weight divisions, taking out of the grades any "off" hogs such as: cripples, boars, stags, sows, piggy gilts, ruptured, unfinished, etc. Additional auction market grading was taken into the project at Abingdon, Orange, Roanoke, Buena Vista, and Staunton; thus entering the fourth change, that of selling graded livestock through interior markets. The auctions were coming, the co-ops were going, as the Eastern Livestock Cooperative Marketing Association was folding up.

Nineteen hundred and forty saw the first stocker-feeder calf grading in Virginia. However, it was not until the fall of 1941 that commingling of ownership was undertaken. This, like all of Virginia's other livestock grading projects, is based on the "Golden Rule." Tell the buyer exactly what he is getting and play for repeat customers, believing that the day of "Horse Trading" in cattle, or any other class of livestock for that matter, is past. About this time we were going through a radical change in production as well as marketing. Eastern cattlemen were still reeling from effects of the late depression, and were searching for a safer plan. The old so called "Export Steer" was going out of fashion, and our producers were rapidly changing from finished to feeder cattle. The commercial cow and calf herd, if you please. Consumers were looking for smaller finished cuts which, of course, means smaller carcasses, and you can't get that job done satisfactorily without grain. We can't compete with the Corn Belt States in the production of grain, our cattlemen reasoned, any more than they can compete with us, with our rugged terrain and native bluegrass pastures, in the production of feeders. Now, with more western feeders going to the Pacific Coast each year and with a shorter and less expensive haul from the East, what could be more logical than that the southeastern States produce the feeders and the Corn Belt States finish them? The only question in the feeder buyer's mind was: Could he get the quality and quantity desired from the East without too much time and expense in assembling loads? Virginia and other southeastern States are providing the answer to that question through their graded feeder calf and cattle sales.

The use and popularity of this service has exceeded our fondest expectations, attracting nationwide attention. In an article entitled Selling Feeder Calves the Virginia Way in the July 1955 issue of the LIVESTOCK BREEDER JOURNAL, Bob Snyder, the Editor, says, "Virginia's feeder calf sales program is one of the great stories in U. S. beef cattle history." And in the same magazine, in the September 1958 issue, J. Hubert Warner, Extension Beef Cattle Specialist, Ohio State University, says in part, "It is generally agreed among those who know, that the excellence of the grading job done at Virginia sales is not surpassed anywhere in the Nation," and continuing the quotation, "It is the writer's opinion that this has been the major key to the success of Virginia's sponsored sales."

This stocker-feeder calf and cattle marketing program is another splendid example of the teamwork that exists between the Department of Agriculture, Extension Service, local marketing organizations, and the Virginia Beef Cattle Producers Association, all having their particular part in the program, with no overlapping of work. We grade them, they sell them. This is as it should be. There is plenty of work for each organization without getting into the other fellow's field, and when they work together, they get the job done. Where there is friction, the producer is the loser. The graded volume of calves and cattle is now running around 50,000 head annually. Yes, the co-ops are coming back through these producer controlled and operated feeder calf and cattle marketing programs.

In 1942, the graded volume of all classes crossed 100,000 head for the first time, and we thought this was indeed a red letter event. However, the standardized way of marketing livestock really caught fire about that time, surging ahead to cross the 200,000 head mark two years later by a substantial margin. Then it cooled off and lost some volume for the next three years, barely holding its head above the two hundred thousand mark. Then in 1948, there was another forward surge, and on across 300,000 in 1949.

In 1950, feeder cattle, principally yearling steers, joined the list of State graded bovines. Two years later slaughter cattle threw their hat into the ring to make it unanimous.

In 1954, we joined hands with the Extension Service and Experiment Stations in the grading of beef breed calves and yearlings in their Record of Performance,ROP, program under Research and Marketing. These cattle are from both registered and commercial herds. More than 150 herds are included in this year's program. We have high hopes that this ROP program will eventually result in much improvement in the feeder calves we have to sell. We are searching for the kind that not only grade well, but also do well in the feed lot, or the pasture field, or in the case of females, for commercial breeding purposes. At this time, the grading of registered bulls started and a number of bull sales are being graded regularly. This year the graded volume crossed 400,000 head.

April 1955, saw the beginning of a major adjustment in hog grading when we started using the new official U. S. Standards for grades of slaughter swine, designed to put emphasis on the meat-type hog we started at a Richmond, Virginia,packing plant. Then early in 1957, the Tidewater Area of Virginia got interested in swine grading, and after a meeting in Smithfield, the home of the famous "Smithfield Hams" two packing plants in that town broke the ice by requesting grading service. In this new swine grading project we have the greatest interest and cooperation of any livestock standardization undertaking to date. Those lending their support include the producer, the packer,both U. S. and State Departments of Agriculture, Extension Service, the Tidewater Experiment Station, the Department of Vocational Agriculture, Swine Breeders' Associations, and bankers in that area. A "Swine Industry Co-ordinating Committee" was organized with representation from each of the above-mentioned organizations and headed by two of the area's outstanding hog and peanut growers as president and executive secretary.

Southeastern Virginia not only had a quality problem, but a serious parasite problem as well, and this Co-ordinating Committee set out with the avowed purpose of licking both. Grading was started in that area in March 1957. Since that time other packers have requested and been furnished grading service. Now we are also grading at two hog buying stations, a hog marketing system peculiar to that part of Virginia and eastern North Carolina, the merits of which are yet to be proven. Personally, I like competitive buying. Grading appears to be showing some improvement in quality and antibiotics are slowing down the worms.

Nineteen hundred and fifty-six was the first attempt at grading stock ewes, for breeding purposes, at the Tazewell Market. This sale has been conducted annually since that time with volumes up to 1,500 head. Then in 1957 we had our first slaughter cattle sales. These fat cattle and stock ewe sales are being conducted jointly by personnel of the Extension Service, and the Department's Market Expansion and Livestock Sections. No fees have been charged for grading while going through the experimental stages or prior to 1958. Feeder pig grading started in the fall of this year. Two sales have been held and two more are planned in the immediate future.

Right here is a good place to explain that Virginia's livestock marketing program is a voluntary service supported largely by fees, rather than by tax money. When starting a new livestock grading project, it is necessary to give free service for a time until the undertaking has had time to prove its worth. In this connection, we are deeply indebted to the RMA Matching Fund Program, without whose financial aid through our Market Expansion Section, today's accomplishments would not have been possible. We feel that the money has been well spent and hope to enjoy this mutually beneficial teamwork in the years to come. These, we believe, are the kind of livestock marketing programs that State Departments of Agriculture should develop to encourage improvement in this field.

TO SUM UP our livestock grading program has been adjusted from time to time to meet changes in marketing conditions, starting off in 1931 with: (1) Selling to local buyers; (2) shipping to central markets and selling through commission merchants; (3) selling direct to packers through cooperative marketing associations; (4) selling through auction markets and concentration yards; (5) switching from "Export" steers to feeders; (6) selling hogs direct to packers by grade; and (7) selling hogs through buying stations.

The above summary of a little over a quarter of a century of livestock grading represents much hard work and long hours for a lot of loyal people since its beginning back in 1931. We are now grading lambs, breeding ewes, feeder calves, feeder cattle, R.O.P. calves, purebred bulls, 4-H club calves, slaughter cattle, veal, hogs, and feeder pigs. But that is history, and the mill will never grind with water that is past, so, now we turn our thoughts to the future, with its unlimited opportunities in the field of standardized livestock marketing, as fate again smiled on us in the crossing of half a million head of livestock graded, on which fees were collected during the past fiscal year.

IN CONCLUSION, I would like to say that we in Virginia are thoroughly sold on the principle of marketing livestock on a quality basis. When better animals are made and marketed, the producer is the boy who is going to get the job done. Therefore, grading should be on the live animal rather than the carcass in order that any monetary incentive will be reflected directly to him, and where differentials in quality are most obvious. We believe that the best way to get the farmer to strive for higher quality is to pay him for it. This standardized marketing program is designed to do that very thing.

To those contemplating a standardized marketing program for livestock, I would offer this advice. In starting, "Don't bite off more than you can chew." The child must learn to walk before it can run. Begin conservatively and build confidence as you build volume. Remembering that you must be able to do a better job than the marketing agency whom you serve, if you hope to survive the test.

CONCLUSIONS AND RECOMMENDATIONS

On potential developments in livestock marketing

In this session, it was shown how changing technology and marketing patterns have placed stresses and strains on the livestock marketing system, rendering it a less-than-perfect mechanism for transmitting the price "signals" of the consumer back to the producer. Also pointed out was the fact that decentralization in livestock marketing had impaired the "price-registering" efficiency of the terminal markets.

Research done at some of the colleges has confirmed the need for much better and more extensive market news coverage of local auction markets and direct sales to packers and other buyers. In discussing how more adequate coverage could be secured of these types of sales, it was pointed out that a system of official grading of live animals would be a great help.

A representative from one State department of agriculture related the experience in that State in developing a statewide official grading system. Information was presented to the group showing how the volume and classes of livestock covered under this program had maintained a steady growth over the years.

Although it was the concensus of the group that major changes are in prospect for the livestock marketing structure, there was no agreement as to the specific form which the new structure might or should take. Representatives from several States described what they are doing and propose to do in providing services to improve the existing system. Expansion of market news coverage and grading services are planned in some States. Time did not permit a discussion of needed improvements in livestock marketing facilities and the services which State departments might provide in this connection.

THE ECONOMIC AND TECHNOLOGICAL FORCES BACK OF VERTICAL INTEGRATION

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Much of the current interest in agriculture-business integration centers on developments in the livestock industry. Broiler production has been the prime example, and developments here have been used to speculate on future developments in other livestock enterprises. Integration in egg, turkey, and hog production also is receiving a good deal of attention.

An understanding of the forces that encourage the greater integration of important livestock enterprises is an essential prerequisite to analysis of probable future trends. These forces must be taken into account also if successful and wise efforts are to be made to influence the trend toward or away from integration or to modify the terms on which participating firms integrate their activities. Do packing firms integrate in order to overcome some block in the marketing system? Dr. Leckie of the Canadian Federation of Meat Packers says this is an important reason. 20/ Are there some intrinsic advantages in integration over other ways of doing business? Why do so many feed distributors enter into contract deals? What is the role of financial institutions in the integration process? What part do farmers' cooperatives play in the process? Finally, what motivates farmers to sign production contracts with business firms? With present information, most of these questions must receive only tentative answers.

We are in the midst of a technological revolution in farm production, processing, and marketing. Integration is an attempt to adapt production and marketing institutions to changing technology. This is the basic force back of integration. Technological change provides an opportunity for the business firms in each sector to reconsider the resource combinations that maximize profits. These new combinations involve a reconsideration of economies of scale, advantages of specialization in production, standardization of product, scheduling of delivery or timing of production, and reduction or shifting of risk

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20/ From a paper presented to the Joint Annual Meeting, American Farm Economics Association and Canadian Agricultural Economics Society, Winnipeg, Canada, August 1958, to be published in the Journal of Farm Economics, proceedings issue.

Some analyses of the integration phenomenon seek to identify the particular unit in the agribusiness sector that is the instigator of integration. Some of these analyses point to consumers who increasingly demand a continuous supply of products of standardized quality; others identify the supermarket as the prime mover; and still others, the farmer. I believe that probably technical progress has acted upon all sectors simultaneously, that consumers have played a rather passive role in the process. Perhaps they have changed their buying habits because of the influence of marketing firms. Let us now consider the effects of technological change on the various other sectors of agribusiness.

Important changes have occurred in the retailing of foods. The number of grocery stores declined by about 30 percent from 1939 to 1954, and the volume of sales per store more than tripled (in dollars of constant purchasing power). About four-fifths of all retail food sales are made by chain stores or by independent stores that are affiliated with cooperative or voluntary buying groups. These mass buyers need assurance of regular supplies of large quantities of uniform products to permit standardized pricing and promotion. This has led to integration of retail and wholesale functions through either ownership or agreement. In several instances, supermarkets have contracted with producers.

Processors reflect the changing demands of distributors and consumers. They seek greater control over the quality of farm products bought and try to reduce seasonal and cyclical fluctuations in supply. In addition to meeting the needs of specification buyers, processors have other reasons for trying to make delivery of farm products more systematic. They are sometimes able to reduce capital costs by extending the seasonal use of equipment, and they can reduce labor costs by leveling out day-to-day fluctuations in the quantity of products processed. Professor Kramer of Michigan State University has pointed out that hog receipts on one particular day of any week may be as great as receipts for all the rest of the week. Contracts with growers can help to reduce daily fluctuations in marketings.

The mixed-feed industry plays an important role in the integration of livestock production because of its strategic position in the advancement of nutrition technology. Several feed manufacturers and many feed dealers are integrated with livestock production either as principals or by contract with growers. The feed dealer-farmer relationship is of special interest because of the unusually strong inducements for expanding output that are involved. The feed dealer who may also sell chicks and other supplies, is confronted with a horizontal demand curve for his product or products and frequently with a decreasing cost for his output. He is partially protected against price risks because feed prices and livestock prices do not fluctuate together. He may be willing to enter into contract deals that may entail little or no profit from sale of broilers or other livestock products, in order to expand the market for his feed and maximize his total income.

Integration tends to increase the volume of loanable funds available to agriculture and to open up new sources of credit for farmers.

These arrangements also tend to shift the flow of credit. Bankers tend to make fewer loans directly to growers and more to dealers or processors, who in turn finance the growers. Even those production contracts that do not involve financing probably increase the availability of credit to farmers. To the extent that risk and uncertainty are reduced, lenders are more willing to make loans and to make larger ones than they would otherwise do.

Interrelationships between financial institutions and integration are complex. Banks and other lenders have encouraged integration by making readily available to feed dealers and poultry processors the funds needed for contract production. A recent study made by the Agricultural Commission of the American Bankers Association points out the reasons for lower risk in loans to integrators compared with individual producers. The further advantage of larger loans is mentioned also. 21/ But integration itself probably was largely responsible for changes in lending policy. Lending institutions have been used as a tool to accomplish integration, but they have been relatively unimportant in initiating integration

Recent studies provide information on the sources of funds for broiler production in Delaware, Virginia, Georgia, Texas, Indiana, and Mississippi. All point to the importance to growers of credit from feed dealers. These dealers in turn make extensive use of funds advanced by banks and feed manufacturers.

Farmers are interested in integration for several reasons. By contracting with dealers or processors, they may reduce risk and acquire more capital. As a result, they can expand their scale of operation, make better use of underemployed labor and other resources, and increase production efficiency. This partially explains the unusually rapid growth of contract arrangments in low-income areas, where availability of capital from customary financing institutions is limited; where there is much underemployment; and where introduction of a new enterprise must be accompanied by technical supervision and guidance.

From the farmer's viewpoint, one of the most attractive features of contract farming has been the opportunity to reduce the various kinds of risk to which he is exposed. On the Eastern Shore, many broiler growers who are able to finance themselves prefer a contract arrangment to reduce risk. This has been shown in studies of broiler growers made by the Farm Economics Research Division, Agricultural Research Service, in cooperation with the Delaware Experiment Station.

By contracting with a business firm,the producer can shift much of his price risk to another party. In the case of broilers, the other party may be a feed dealer or a processing firm. Production risks may be partially shifted also. This is the case with broiler contracts that provide for minimum grower payments. Also, price and production risks are more easily carried when shifted from individual producers because marketings are dispersed over time and production locations are distributed in space. Risks are averaged out. Moreover, the total amount of risk to be carried in the whole agribusiness sector may be reduced. Price risks that arise from fluctuations in volume, for example, are

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21/ Agricultural Commission, American Bankers Assn., Contract Farming--Implication to Banking, New York, 1958.

reduced because the lower prices of livestock that result from increased volume are partly offset for the whole agribusiness sector by higher earnings on the increased volume of feed sold.

Some contract arrangements reduce production risk to farmers by providing on-the-spot technical aid to detect and combat outbreaks of disease. These features may or may not be accompanied by extension of credit. Financing is an important part of broiler-, egg-, and hog-production contracts. It is usually on terms that protect the grower against major losses, and ordinarily, it is accompanied by provisions for technical aid or supervision.

These various features of contracts appeal to farmers partly because the risk is limited, and also because they help the grower to expand his scale of business and to adopt more efficient methods.

Farmer cooperatives also are an integrating force. Farmers sometimes organize cooperatives in order to establish the processing or marketing facilities needed for a product new to the area, or to try to get a bigger share of the consumer's dollar for an existing product. Once established, cooperatives themselves furnish impetus for further integration. I think that the management of a cooperative feed mill or poultry processing plant responds to much the same motives as a proprietary business firm. It seeks to keep costs down by building volume of feed sales or by keeping its poultry-dressing plant in continuous operation.

At each stage in the chain of production, processing, and marketing, from the farm supplier to the housewife, forces that promote closer coordination or integration are at work. These forces are interdependent and each is a consequence of fundamental and continuing changes in technology. The effects on the livestock economy may be widespread. But we should not conclude that all livestock production will be organized on the well-publicized broiler pattern or that the broiler industry itself will continue to operate as it now does. Present contract-farming arrangements may not have reached their ultimate form, and alternative systems of integration may be developed that will retain more of the responsibility for management and risk in the hands of the farmer.

VERTICAL INTEGRATION OF LIVESTOCK PRODUCTION AND MARKETING FUNCTIONS-- HOW FAR AND WHO WILL DO IT

Clifton B. Cox
Purdue University

Vertical integration in an industry usually takes place because the competitive system is not working properly. In addition, there must be profit to be made from integrating. Vertical integration only takes place when science has replaced art so that management functions can be consolidated into one company or management group.

Since various people define vertical integration in different ways, it may add clarity if I give my definition. As I look at an industry, we usually see suppliers, producers, assemblers, processors, distributors (which includes retailing), and consumers. To be vertically integrated means that two or more of these links in the chain have been combined in such a way that the decisions are made by one company. Financing alone, providing a market alone, or providing other needed services are not necessarily integration. As long as the producers or the operators of firms in any one of the links are left free to make the decisions, I do not consider them integrated. My assigned topic dealt with livestock production and marketing functions rather than with the processor or distributor. I will, however, speak a little bit about the retailer and processor since these two may have the possibilities of being the integrator.

Now why does integration take place? Of course, integration takes place only to increase the profits of the integrator. It seems to me that the livestock and meat industry may be integrated somewhat when one or more of the following conditions are present:

1. Technology is available that has not been put into use. The competitive process or information is not generally accepted by all; therefore, the one taking advantage of this technology, stands to benefit. It seems to me this has been a major factor in the integration of the poultry industry.

2. Quality of the product is not uniform or is not meeting consumer desires. Consumers have definite preferences, some of the time. If firms will provide consumers with goods desired, usually consumers will reward them with higher prices. This is the reason that automobile companies have built Cadillacs or Lincolns and Fords or Chevrolets. In the livestock industry retailers want a certain quality of product. If this quality is not uniform in our present day merchandising program, there may be some benefits from controlling the production process so that quality uniformity can be achieved. On the basis of some of our research at Purdue University, there is indication that consumers will pay more for lean-type pork. In a set of prices used in our research project, consumers were willing to pay $1.60 per hundredweight more even after taking out the inaccuracies of grading and the cost of grading. With a relatively small packer in Indiana that may kill 2,000 hogs per day, this would mean over $3,000 per day. This probably is sufficient incentive,if he were able to keep all of it, to consider integration. Under present marketing conditions, the differences in value of hogs to the farmer because of grade are about 50 cents per hundredweight. This results from the difference in yield of lean cuts rather than on consumer preference for these lean cuts. If the pork products are processed correctly, it seems to me there is sufficient profit for the retailer, processor, and farmer to change the marketing structure. However, if the product is not differentiated, it seems that very little will be done to change the present marketing system.

3. Wide fluctuations in supply cause concern. Livestock production and prices have been noted for cyclical movements and seasonal movements as well as extreme fluctuations in receipts and prices at the market place. With 200-pound hogs bringing $10 per hundredweight three years ago, and $25 per hundredweight during the past year, it appears that profits may be possible from some sort of orderly marketing process. I have had packers to tell me that they were willing to pay an additional $1 premium for hogs if they could specify the time of delivery. With labor contracts in the packing industry, it is imperative that packers do something about supply.

4. Dependable market outlet. This appears not to be a major problem in the livestock industry. However, in other agricultural commodities a dependable outlet has been the force behind farmers integrating and setting up their own facilities.

Who Will Do It?

A determination has not been made in the livestock industry as to who will be the integrator. Basically, it will be the one that can make a profit from doing so. Let us take a look at the various possible integrators.

1. Feed Dealer. This individual has generally been considered the culprit in the poultry industry. However, as we look at hogs, we find about two-thirds of the cost is for feed. Most of the feed at the present time is produced on the farms where it is fed, leaving only one-fifth to one-fourth of the total cost for supplement. To take the entire risk and guarantee prices against the forces of the packers in the livestock industry appears too great for the feed dealer. In addition, the raising of pigs is more complicated than baby chicks. As yet, there are many problems to be worked out before the production of feeder pigs is a science that can be turned over to hired labor. Of course, we will see a few feed dealers making efforts in the area, but in the long run, I do not consider the feed dealer as a major contender for the role of integrator.

2. Retailer. Again the production of hogs is rather complicated for a merchandising organization at the retail level. Retailers are accustomed to buying supplies each of the weeks, whereas the production processed for pork takes about a year. The president of one of the major retail chains told me that he did not anticipate integrating into the packing industry. He thought his firm was in sufficient bargaining position to get the benefits from technology from the various packing firms without being limited to his own initiative if he were integrated. A few of the retailers have integrated in the packing industry to get supply. This, I believe, has been decreasing somewhat since World War II. Therefore, I do not see the retailer as a contender for the integrator position.

3. Processor or Packer. The packer needs an orderly marketing or supply of livestock. His labor contracts with a guarantee of 36 hours per week with time and a half for time over 40 hours, makes fluctuations in receipts extremely expensive. Also, with the retailers demanding quality the packers will tend to benefit from demanding uniform quality in livestock. Therefore, as a likely contender, the packer stands out as one real possibility as an integrator.

4. Market Agency. As long as the market agency works on a per head basis and the livestock generally pass through markets, the market agency has little incentive to be an integrator. However, when his very life blood is threatened by livestock by-passing his market, different stimuli may come into action. He may try to preserve his position. In this way he may attempt to offer the services demanded by the packing firm on one side and the farmer on the other. If he can adequately provide this service, he may actually prevent integration or he may be the integrator. In general, I would feel that he would not take on the job of processing or in production but would tend to prevent integration.

5. Farmer. The farmer stands to lose much if the market for pork continues to decline, particularly if he continues to produce the same numbers. Other segments will lose, also, if numbers are restricted. The farmers have been the integrators in a number of instances through cooperatives. Sweden is about 85 percent farmer integrated in the livestock industry down to the retail store. Therefore, it can be done. If the processor continues to refuse to deliver to the consumer the product differentiated as the consumer desires it, and if farmers were to recognize this and provide this quality along with a uniform supply, there would be profits in it for the farmers. I must say here I do not see a cooperative that is going to be a major factor in the next few years in integrating the livestock industry.

Most of what I have said has dealt primarily with hogs. Of course, there has been some integration of a horizontal nature in the beef feeding industry - that is, large specialized feed lots. As far as integrating vertically, I see no real trend in the beef industry.

In the hog industry my own personal belief is that there will be attempts made to integrate. The success of these attempts will be more spectacular from publicity points of view than real. Areas outside the Corn Belt will have more success in the early days than within the Corn Belt. Because our industry is being alerted to the possibilities of integration, it seems to me that it will not be integrated. The most I expect is 10 to 15 percent integration in the next 10 years. Some of this will be done by the processor and some by the producers. A forward looking processor may be very successful if he were to integrate on the basis of quality and on the basis of time. However, I see none that really wants to take the risk. Farmers, too, fear such processes as meat packing.

Integration will usually give way to specialization if the competitive forces are allowed to operate. When the segment is going through tremendous changes such as technological ones, or when monopoly forces dominate, vertical integration tends to remain a profitable venture. However, in the livestock industry, I do not foresee immediately major technological changes that will bring about profits from integration. Neither do I see the major forces of monopoly getting control so that it is possible for either segment to integrate. I am convinced that consumers, retailers, processors, market agencies, farmers, and suppliers will benefit and yet preserve our competitive economy.

CONCLUSIONS AND RECOMMENDATIONS

On vertical integration and its effect on marketing

In discussing the future role of vertical integration as a force in the production and marketing of livestock, several observations were made concerning the conditions favorable to such a development in an agricultural industry. The conditions are (1) when known technology lags adoption, (2) where there are production and marketing risks to be minimized or shared, (3) where there are unused labor resources, (4) where adequate capital is unavailable to one of the parties in the potential integrated operation for him to adopt the newer technology, (5) where the quality, quantity, and flow of a product to market no longer meets the needs of today's large-scale buyers. In the hog industry, the most likely reasons to integrate are to control quality and the flow of hogs to market. Feed companies, retailers, packers, market agencies, and farmers (through their cooperatives) are potential integrators. The view was expressed that of these potential candidates, the packers and farmers are most likely to be the integrators, if the hog industry is integrated. Attention was called to some of the basic economic differences in farming, particularly as regards under utilization of labor in the Corn Belt and in the areas where broiler production has mushroomed under integrated arrangements. Estimates by the group of the extent of integration in the hog industry over the next 10 years ranged from a minimum of about 10 percent up to a maximum of about 35 percent. There are reasons to expect a greater degree of integration in the production of feeder pigs than in feeding for market. Specialized production of feeder pigs may develop in surplus labor areas with feed companies being the integrators.

POULTRY AND EGGS

Work Group Sessions

CURRENT DEVELOPMENTS IN EGG MARKETING

James M. Gwin
Ralston-Purina

It is a privilege and pleasure to appear once again on your National Marketing Service Workshop. I always enjoy these assignments for they also afford me the opportunity of meeting the new people working in this field and the chance to renew acquaintances with a number of my former associates.

First of all, I want to congratulate your committee on selecting the theme, "Adjusting Marketing Service Programs to Changing Conditions." I'm sure most of you agree with this theme, but if there are any who do not, it is quite likely that this program will show the very great need for keeping marketing service programs geared to current needs.

I have been asked to cover the subject, "Changing Developments in Egg Marketing." Believe me, my preparation problem has not been one of getting material for this presentation -- instead, the most difficult part of the task has been the condensing and organizing of the material to meet what I believe to be your particular needs.

I am sure all of us recognize that "the line of least resistance" in a discussion of this nature is to deal in generalities, plus enough qualifying statements to cover every future possibility. But, because I have worked in the field in which most of you are now engaged, I feel that I have a better than average understanding of your point of view. For example, I know that most of you are interested in reducing generalities to your particular needs in order that you may better understand the specific problems which you must handle in your day-to-day operations. I will, therefore, use generalities only to describe the basic problems concerned with current developments in egg marketing and will then try to bring these problems down to your present-day operating levels.

My first generality is to state a fact--one that most of you already know. It is that the poultry industry has, for a great number of years, been undergoing change. Since the war, however, the rate of change has been greatly increased and, during the past year or so, it has shown an even greater acceleration. The most important change, from an industry point of view, has been the increase in size of flock, accompanied by increased efficiency of production which has substantially reduced unit cost. In working at close range with poultrymen, most of us recognize that the good ones usually adapt to these changes and are successful under most every circumstance and under almost all kinds of economic conditions. We also note that the opposite is usually true of the poultrymen who fail to change or to properly time their change to the adoption of methods that lower costs or increase output. We must also recognize that all poultrymen are either favorably or adversely affected by the basic economic factors that tend to help or harm the industry as a whole.

The poultrymen who are likely to present you with one of your most difficult problems are those who failed to change, or who failed to make the proper change and find themselves, mainly through no fault of their own, in the position of the picnickers in the bull pasture who suddenly discover that a mad bull is charging them. They can't just stand there, they must do something. The question that they want you to answer is, "Why have I been put in this position and what is my way out?"

First, let us try to account for the position in which they find themselves. Basically, it is due to the fact that their profit return per unit is substantially smaller than it was in previous years. They must, therefore, produce more units to get a return equal to the one they received in former years. An additional problem in this connection that tends to make your answer more difficult is the fact that it looks as though the future trend will continue in the direction of larger flocks and even lower profit margins and production costs per unit of product.

Those of you who are approximately my age, or older, can well remember when a flock of 250 hens was considered a large one. It was also considered large enough to provide a substantial part of the family's income. Today, 250 hens constitute a relatively small flock, one that will not provide as much return as it did in the so-called "good ole' days." In answer to those who make comparisons only on the dollar-for-dollar basis, it must be understood that the purchasing power of the 1915 dollar was about 15 loaves of bread compared with 5 or less today.

Thus, your 1958 poultryman finds that he must increase output or efficiency just to hold his own or else suffer the very great possibility of decreasing returns which could, in time, force him out of the poultry business. If, through your help, he understands that his problem is really one that is shared by all poultrymen and that it is not basically political but rather the result of change that has, at one time or another, affected almost all industrial and agricultural industries, he is in a position to consider his problem in a more rational manner. He will then realize that he has virtually three possibilities to consider, consisting of: (1) Increase the size of his operation; (2) exist on a reduced income; or, (3) discontinue his poultry operations.

Let us assume that he decides that, because the poultry industry is moving toward larger units and less profit per unit, he will investigate the possibility of discontinuing poultry production and of turning to another source of livelihood. He investigates the retail grocery business and finds that the trend toward lower unit cost and higher volume output is even more pronounced than in the poultry industry. He finds that the same applies to the auto industry, the canning industry, and almost every other line of endeavor that he investigates.

He then gives consideration to the possibility of expanding his operation. He quite likely knows, or he will very quickly learn, that expansion requires capital. This presents him with his first major problem. If he has additional capital from his own resources, his expansion will be comparatively easy. If he can secure sufficient credit from banks or other sources he is still in position where he must assume all risk. However, it also places him in line to receive the benefits from all returns and it gives him the freedom of buying his supplies and selling his product wherever he wishes.

He then asks, "If I expend my capital or credit on expansion, will this integration that is sweeping the country drive me out of business?" I would suggest that your answer to that question be one that would explain that, from all indications, integration is certainly going to make market egg production a more competitive business, but there is no conclusive evidence to show that it will create conditions that will be beyond the competitive range of the good independent producer. In fact, there is nothing in the economic pattern of integration in the market egg field that indicates special benefits that are beyond any efficient large volume producer.

Let us now assume that the poultryman with whom you are counselling lacks both capital and credit, or that he lacks the desire to expend his own capital or extend his own credit -- yet,he wants to expand his operation. What advice should you give him from both an industry and individual point of view?

Your attitude toward integration is important to both the individual with whom you are counselling and to the industry that you serve. Because of the importance of this attitude, let us spend some time considering the problem from your point of view. One attitude is to resist all effort toward integration and justify your stand on the basis of its leading to over-production; ruinous competition for the small poultryman; and its domination by big business. The opposite attitude is to point to its advantages in lowering cost of production; its opportunities for many poultrymen to remain in business; the incentive plans; and the expansion possibilities.

It must be recognized that condemnation alone cannot stop the forward progress of integration in the market egg field. The only force, except the possibility of national legislation, that can halt its forward movement is the profit and loss factor. It now appears that the market egg industry will have to experience the same growing pains that the broiler industry has suffered. Industry and individual interests do not always work in complete harmony, but the ever-present law of supply and demand, while inflicting some economic battle scars on the individuals and firms involved, will ultimately handle the basic industry interests.

PROGRESS IN DEVELOPING NEW AND IMPROVED EGG GRADING PROCEDURES THROUGH QUALITY CONTROL AT THE PRODUCER LEVEL

Robert A. Dorsett
AMS, U. S. Department of Agriculture

During the early part of 1957 the Poultry Division of the United States Department of Agriculture was requested to study the possibility of an egg quality certification based on a break-out test and the measurement of the thick white.

The study was made in different sections of the United States by three members of the Poultry Division. It revealed that such a certification program would be feasible if there is control of facilities and management at the producer level. It also demonstrated that the break-out test could be developed to provide a more objective method to determine the quality of a given lot of eggs.

A proposal for a Controlled Egg Quality Certification program was written and several plants throughout the country were chosen as experimental points. Tests were set up and records maintained on the flocks that could qualify under the proposed requirements. At three of the stations these eggs were distributed under a newly-proposed label, "Fresh Fancy Quality, Produced and Marketed under Federal-State Quality Controlled Program."

During the last year, the records have been under study at the Washington office. Statistical studies have been made of the sampling procedures. Other work has been done at the plant level to study handling, testing, and processing procedures.

In setting up a program of this type, our main objectives are to make sure that it is practical and economically sound.

After considerable study, we have written a new proposal of requirements for this program. Now I would like to review the proposal, which includes all the changes and modifications of the program.

Preface.

All terms in the United States Standards when used herein have the same meaning as when used in the Standards.

1. Packing station or plant must have a satisfactory procurement and distribution program including, but not being limited to, the following requirements at the farm and retail store level as applicable:

    1. Eggs from each flock shall be packed separately and the shipping cases marked so as to facilitate segregation at the packing station. A flock consists of birds not varying in age by more than 60 days. In operations with a constant replacement procedure, such as cage operations, birds shall be grouped together in accordance with the above requirement.

    2. Eggs should be gathered from the nest at least twice, and preferably three times, a day.

    3. Eggs which require cleaning should be cleaned by approved methods as contained in Shell Egg Grading Regulations. Eggs may be treated by oil dipping, oil spraying, or oil emulsion spraying, provided that methods used are such as will not cause objectionable cloudiness in the whites. Oil treating and cleaning operations must be in compliance with the sanitary requirements as provided under the shell egg regulations.

4. Eggs shall be cooled immediately after gathering to 60° F. or below and held at a reasonably constant temperature not to exceed 60° F., and a relative humidity of approximately 70 percent.

5. Eggs shall be transported and handled under such conditions as will prevent sweating and so as to reach the packing plant or store with an internal temperature of 60° F. or below.

6. The temperature at which the eggs are held and displayed at the retail store shall not exceed 60° F.

7. Periodic checks to determine the adequacy of the production and distribution programs shall be made by civil service employees under the supervision of the Grading Branch, Poultry Division, AMS.

II. Minimum requirements at time of packaging.

1. Quality of eggs shall be determined by the broken-out score, measured in Haugh units, and the condition of the yolk. The break-out test shall be accomplished at the assembly plant or at the farm in the event the eggs go directly from the farm to the store. Eggs that do not meet the requirements of AA quality with respect to shell texture or shape shall not be selected as part of any sample that is to be broken out and scored since such eggs will be removed at time of packaging.

2. The internal temperature of the eggs shall not exceed 60° F. at the beginning of the packaging operations.

3. A flock may be eligible for entry under the program when (a) one sample of 25 eggs drawn at random averages 76 Haugh units or higher; or (b) two samples of 25 eggs each drawn at random (one sample per week for two consecutive weeks) each averages 72 Haugh units or higher. No sample shall contain more than one egg measuring less than 55 Haugh units and no eggs in any sample shall contain yolks with serious defects.

4. A flock may remain on the program provided that a "moving" average of 72 Haugh units or higher is maintained with no individual "weekly" average below 68 Haugh units and provided further that not more than one of any two consecutive "weekly" averages falls below 70 Haugh units.

   (a) The "moving" average shall be computed by averaging the scores of the latest four weekly tests of a flock, except that during the second and third weeks after admittance to the program, the average shall be computed by averaging the latest entry with the previous weekly entries.

   (b) The "weekly" average shall be computed by averaging the results obtained when testing eggs in accordance with either sub-section 1 or sub-section 2 of this section. Samples shall be drawn at random once a week per flock from a single shipment. In either case, no eggs in any sample shall contain yolks with serious defects.

a. A sample of 10 eggs shall be tested when the "moving" average is below 78 Haugh units and not more than 1 egg in the sample measures less than 55 Hugh units; or

b. A sample of 5 eggs shall be tested when the "moving" average is 78 Haugh units or above and the sample contains no eggs which measure less than 55 Haugh units. If 1 egg measures less than 55 Haugh units, an additional 5 eggs shall be tested. If this second 5-egg sample contains no eggs below 55 Haugh units, the average of the 10 eggs shall be used in determining the "weekly" average.

5. Any flock which has been on the program and is excluded for failure to meet the requirements may be reinstated by the same procedures used to originally enter a flock on the program.

6. Eggs from flocks that meet these requirements may be packaged and officially labeled after those with blood spots, meat spots, or checks, loss eggs, and eggs with shells failing to meet the requirements for AA quality have been removed. If packaging is in cartons, the cartons shall be marked with the proper egg size and packed in accordance with the regulations.

7. Cartons or sealing tapes shall bear, in distinctly legible form, a date preceded by the statement, "Not to be sold after" or a similar statement having the same meaning. The date shall not exceed 10 days including the day of packaging. Upon expiration of the 10 days, the eggs shall be removed from the labeled cartons.

8. Sampling, break-out testing, and maintenance of records of break-out test shall be the responsibility of/or under the immediate supervision of a civil service grader. All graders shall make examinations of all packaged product to observe compliance with U. S. Grade AA standards for shell conditions, loss, and foreign material such as blood and meat spots. The size of the samples shall be on the basis of the requirements of the regulations (7 C.F.R. Part 56).

9. Reasonable variations from the provisions of these requirements may be approved by the Administrator, provided that such variations are not in conflict with the intent and purpose of the requirements.

GETTING ADOPTION OF RESEARCH RESULTS

T. E. Thomson
Minnesota Department of Agriculture

In getting into this discussion we must admit at the outset that learning new, and to our way of thinking, better ways of doing things by research, and getting them into general use without exasperating delays are two different problems. Up at our Veterinary Clinic at the University Institute of Agriculture in St. Paul some advanced results in heart research were obtained through extensive research, but as no medical doctors were involved in the projects, and none were connected with the Veterinary School faculty, the results were not accepted or taken seriously by the medical profession until the same procedures were finally perfected at the University of Minnesota Heart Research Hospital some years later.

In 1955, a professor of dairy husbandry and a medical doctor encountered similar resistance to a research project that seemed to promise startling and favorable results. Our brilliant Dr. W. E. Peterson, who is perhaps the leading authority on milk cows and their internal mechanism for producing milk, collaborated with Dr. Berry Campbell of the Medical School of the University of Minnesota in experiments to determine whether or not immunity from specific diseases can be established by drinking milk from cows which have developed resistance to the bacteria causing such diseases through a buildup of anti-bodies following injections with bacterial serums. These two scientists are finding that the research they have done is not being readily accepted, and probably will not be until they accumulate additional proof of their findings and the public finally is ready for it.

Similar experiences are encountered by American foreign agricultural experts who introduce modern equipment to natives, such as nomadic tribesmen, and teach them their uses, only to find the equipment discarded after little or no actual field use. Just as the research scientists continually seek better methods and tools to improve agricultural customs, so we try to have improved marketing practices assimilated by consumers whose standard of living we would raise.

Frequently we feel a sense of frustration at the failure of consumers to take advantage promptly of changes we feel should be made in their buying habits, not taking into full consideration that it may be more difficult for the general public to obtain and understand the facts which have led to our acceptance of the new ideas in question. This prompts the inquiry - are we furnishing consumers with enough information regarding proposed changes so they are justified in adopting the advanced ideas reasonably soon after being informed? In spite of our natural liking to continue old habits and our reluctance to change our ways of living, we do see many examples of new ideas accepted at once as part of the normal living pattern, so we know that under the right conditions it can be done. Let us strive to become familiar with the conditions that are right for each particular research project which may have potential results that should be put into practice.

Some ideas appeal to the imaginations more readily than others, and will be accepted on a wide scale in a comparatively short time. The practice of oiling eggs with the spray method by the producers themselves is achieving popularity quite rapidly. It has been assisted by the management requirements of some egg procuring organizations, and the availability of the oil in aerosol pressure cans at dealers in most localities. We must recognize that insufficient information accompanying the sale of spray oil in this manner has led to abuses such as the use of oil as a substitute for neglected fundamental quality practices like gathering eggs often, cooling them promptly, etc. However, we should not overlook the equipment dealers as a means of getting adoption of new worthwhile ideas which we can hope will be presented properly. We have an interesting recent report of a locality in Iowa where the lumber dealers, hatcherymen, and egg producers all got together in a successful effort to promote better chicken housing along the lines recommended for good practice under modern conditions, which was successful in raising egg production and poultry standards throughout the area.

I would like to give you the details of a research project that had its beginning in August 1945,when four members of the Poultry & Extension Divisions of the Minnesota State Institute of Agriculture made a survey of 22 processing and marketing plants selected across the State to get a cross section of developments and trends in the poultry and egg industry during the war period in Minnesota. At that time, 1945, nearly 2½ times as many eggs were being produced in Minnesota as the average production during the pre-war years of 1935-1939, and the buying methods about the State showed very little uniformity. We did not have an adequate or effective State egg regulation at that time, although the 1945 Legislature had revised the egg law.

The operators of these firms were asked such questions as, do you buy eggs on grade; and if the answer was yes, they were asked, on what grades? Usually Federal grades were quoted, in which case they were asked if AA's were purchased and the answer invariably was that AA's were included with A's. Similarly, Extra Large eggs were consolidated with Large eggs. Great variation was found in both grades and sizes, such as using minimums of 22 as well as 23 ounces for Large. The survey showed that the 22 egg purchasers were using 22 different grading systems.

One important fact became very obvious when the survey results were weighed, and that was that no dealer actually bought on more than three grades. This knowledge made such an impact on the survey team that they decided to attempt to do something to reduce the number of purchase grades from 36 to a more realistic number that would be practical and be accepted uniformly by all dealers in the State.

The next step in this research program was a survey of retail food store egg sales in a metropolitan area, and was conducted by the Extension Division of the Minnesota Institute of Agriculture with the assistance of the State-Federal Egg Grading Service, in August 1947.

The survey was made in Minneapolis on 2 consecutive days during which 11 purchasers bought eggs from 210 retail stores representing 15 percent of the retail food outlets in that city. One dozen of each kind of eggs sold was purchased at each store, and all of the total of 287 dozen eggs were examined and graded by State-Federal Inspectors. In addition to the actual purchases, a three-page questionnaire was filled out at each store to furnish the background material to be used in carrying out the purpose of the survey. Included were questions on the source and type of egg supply, frequency of delivery, kind of containers used in purchases and sales, grades, prices, inventories, losses, storage and sales equipment, customer preferences and reflected price ranges, what consumers asked for when buying eggs, consumer preference as to grade, size, condition, color of yolk and other interior qualities, type and size of store, consumer complaints and prevailing character of occupation and most common nationality of store patrons.

In order to obtain as clear a picture as possible, this survey included all sizes of stores, so differences could be noted between high and low income groups. It was determined that no stores were selling eggs according to Federal grades, none was using more than three grades and,in most instances, the size and quality were combined in one or, at the most, in two grades.

It is not a difficult matter to generate an argument around the differences between consumer AA and A grades as the consumer actually receives eggs so labeled, and because of the human element involved in grading, we all know that it is possible for separate graders to come up with differences in their classification of top grade eggs, when proved by breaking out the eggs following candling and grading. When, in August 1948, the Minnesota Department of Agriculture promulgated new regulations under the State egg law that had been revised by the legislature in 1947, the first change in both the purchase and consumer grades was to consolidate Grades AA and A into Grade A. Other changes, which will be better illustrated shortly by slides, reduced the number of grades from 36 in the Federal Grades to 5 Minnesota Grades, Grade A Large, Medium, Small, Grade B, and Grade C, for both Purchase and Consumer Grades.

One year later, however, at a subsequent regulation hearing, some industry members succeeded in having the Purchase Grades changed to Grade A Large, Medium and Small, and No. 2 as the grade for all other edible eggs and including Grade A small if desired. These grades were in effect until 1954, when the Grade 2 was dropped and Grades B and C restored to Purchase Grades, and an optional Grade A Jumbo provided for in Grade A Large consumer grades. But the consolidation of grades to the smaller number in 1948 marked the beginning of a uniform grading system in Minnesota which has been of benefit to both the dealers and the consumers and is a substantial example of successfully getting adoption of research results.

In view of the satisfactory utilization of this grading system in the light of ten years' experience,we can enthusiastically endorse it and urge a wider adoption of it. We firmly believe the consolidated grades are adequate for all ordinary transactions, and recommend that egg industry and enforcement personnel in other States investigate the advantages to be gained by use of this grading method.

During this period, some, but not enough, improvement developed in the quality of eggs produced throughout the State. It was noted that the prices received by producers in some areas varied considerably below those paid in other parts of the State. In order to determine whether quality, obsolete methods of marketing, or lack of competition could be responsible for the low prices received in some counties, in October 1956 a survey was conducted jointly by the Minnesota Institute of Agriculture, Department of Agriculture, Dairy and Food, and the State-Federal Egg Grading Service in a county that we considered typical of the surplus egg production areas in central Minnesota. Producer samples of three dozen eggs each were obtained from each local buyer, and were candled and graded immediately by the State-Federal graders.

Only about three out of five eggs were of Grade A quality when sold by producers, and eggs that arrive at local markets as Grade B or C are not in condition to make the long trip to distant terminal markets outside the State (where 70 percent of Minnesota eggs are sold) and still have saleable quality and consumer appeal on arrival. Nearly eight percent of all eggs examined were dirties, and more than five percent were checks and leakers.

At that time, the Minnesota law permitted the purchase of producer eggs either on a graded or ungraded basis, and the higher quality eggs predominantly were those sold on grade rather than as current receipts. Among the dealers there was a wide variation in grading practices involving considerable up-grading and so-called pencil grading, unsatisfactory handling of the eggs, use of inexperienced candlers, insufficient refrigerated storage, and a generally slow movement of eggs to the egg plant destination, beginning at the farm level and continuing through the gathering station to the processing plant. Stores selling eggs at retail in this county were supplying only about 25 percent of local needs, and less than half of the eggs they sold actually graded A.

The information gained in the survey was largely instrumental in further changes being made in the State Egg Law by the 1957 Legislature and, subsequently, in the Regulations by which the details of the law are enforced. Purchase Grades remained as before, but with a stipulation that dirties and checks shall be identified as such and, therefore, paid as such. For simplification of records, the bench record, which is in ink and part of the permanent office record, may have dirties and checks and Grade C eggs grouped in one column. The following slides will show you the basis of consolidation of the 36 federal grades into the present Minnesota grades. (Showing of 9 slides.)

Several important changes were incorporated into the present State Egg Law as a result of the research projects I have described. In order to promote uniform grading, an annual dealer's inspection fee is levied, the size of which is determined by the number of cases per month handled by each licensed dealer, ranging from $25 to $200 per year. This program finances the salaries and travel expenses of six egg inspectors, who are selected by State Civil Service with such prerequisites as actual industry experience and qualification for the State-Federal Grader's license. All eggs must now be purchased on the graded basis, and all eggs must be maintained at 60° F. or below continuously after being received from the producer by the first licensed buyer. This temperature requirement is repeated in the law with reference to retail stores.

Getting back to the present regulations, included are requirements for dating or coding all consumer packs of eggs which shall guarantee the grade indicated for a period not to exceed seven days when properly handled and refrigerated. An important regulation, and one which we feel will do much for the egg industry in Minnesota, provides for a quality egg production program under the supervision of the Poultry Industries Division of the State Department of Agriculture, and as of this date permits have been authorized for the first two producer groups to qualify under its provisions. It establishes minimum standards, such as confined flocks, a balanced feed program, gathering eggs at least three times per day with the use of wire baskets or other approved containers, minimum holding temperatures of 60° F. and 70 percent minimum humidity, pre-cooling cases before packing, and delivery to the dealer twice per week or oftener.

Sampling by the Haugh unit method is used to determine the grade of eggs produced, which in effect determines compliance with requirements. Regular inspections are conducted by State inspectors or authorized industry officials in the same manner that the Grade A Milk Program is administered. Issuance of the permit carries with it the authorization to use the Minnesota Certified Egg Quality Control Program insignia on egg containers and retail packages.

We are confident that this premium egg program is going to grow rapidly in popularity by bringing to the producers a better price for their eggs and insuring better quality for consumers who will be able to obtain top quality eggs without driving directly to the producer for them.

With the modern trend toward streamlining and consolidation, no doubt we will see many changes in the next decade, such as a reduction to only about a half dozen large egg breeders, who will sell through franchised dealers, and complete automation in sorting out cracks, checks, misshaped shells, and eliminating bloods, as well as grading for size. When quality control programs become universal, individual egg candling will undoubtedly be classed as an expensive unnecessary procedure, the producer will be graded rather than his eggs, other than the sampling of perhaps five eggs for each 20 cases, and our State laws will have to be revised to keep up with these changes. The big feed companies like Cargill are already pointing the way toward mechanization of this character by their use of electronic computers whereby they calculate in minutes the formulae that previously required weeks to determine.

Back of all of these projected changes much research will still be required, and the desired results can be obtained by cooperative efforts between all agencies which may have contact or supervision in any way with those toward whom the research is directed or those who will benefit by it.

CONCLUSIONS AND RECOMMENDATIONS

On current research in egg marketing

Changes in the marketing system for shell eggs have brought about a need for improved facilities to enable the marketing of eggs in larger quantities at reduced costs. Current research in mechanical egg grading and handling equipment includes such developments as improved egg cleaning machines, electronic grading devices, and fully automatic sizing and packaging equipment.

Present trends toward more complete mechanization in egg marketing is presenting problems in the industry in incorporating new and improved equipment into existing facilities in such a way as to obtain maximum efficiency. Greater investment requirements for mechanization are causing further problems and alterations in the present marketing system. Small producers and packers, unable to meet the tremendous investment costs, are facing three alternatives: (1) Get out of the egg business; (2) remain as they are and accept a lower income; or (3) increase the size of their operations.

Some will go out of business. These include the inefficient and persons unable to expand. Many small operators will expand their size of business by using personal capital, obtaining credit, or by integration.

Progressive methods toward reducing grading and packing plant operating costs will make revolutionary changes in grading and grade certification. Research to develop new and improved Federal and State grade certification programs, better adapted to modern marketing practices, is underway.

Recommendations for consideration:

1. Develop a service program or strengthen present ones whereby assistance may be given to processors and packers, in improving the efficiency of their egg grading and packing operations.

2. Initiate a service program giving technical information pertaining to the physical aspects of handling eggs in marketing channels.

3. Work with plant management to train personnel properly for the job they are to perform.

4. Initiate a program to assist at the producer level with designing quality control programs that will contribute to the efficient use of improved mechanized equipment at the grading and packing plant whereby the costs of grading, packing, and handling of eggs may be held at a minimum.

5. Give assistance when possible to research problems dealing with new and improved methods in grading and handling of eggs.

PROBLEMS AND POLICIES IN ADMINISTERING THE POULTRY INSPECTION ACT

R. D. Wenger
AMS, U. S. Department of Agriculture

I am very glad of the opportunity of representing the Poultry Division at this Workshop. I would like to express Mr. Hermon Miller's regrets at not being able to be with you this morning, however, I will do my best to substitute for him.

As you all know, the 85th Congress passed the Poultry Products Inspection Act, which was signed by the President on August 29, 1957. The Act requires that all poultry shipped in interstate or foreign commerce after January 1, 1959, must be inspected under this Act. The Act, however, became effective immediately for the purpose of permitting the development of the necessary organization of staff and development of Regulations by the Secretary of Agriculture.

The Act made it plain that some type of ante-mortem inspection should be made; however, the extent of such ante-mortem inspection was left to the discretion of the Secretary of Agriculture. The Act makes it mandatory to perform post-mortem inspection of each carcass at the time of processing. It does not give the Secretary any authority to change this concept of bird-by-bird inspection on postmortem inspection.

The law provides that all poultry processed for interstate or foreign commerce after January 1, 1959, must be processed in establishments in which sanitary standards of operations and facilities are being met.

It also specifies certain labeling requirements which must be met for all poultry products shipped in interstate commerce. Labels must be approved by the Inspection Branch prior to printing and use.

Another of the provisions of the law is the control of New York dressed poultry. We interpret the law to mean that New York dressed poultry should be eliminated from the channels of commerce as rapidly as possible except that it may be moved in commerce from one official establishment to another official establishment for further processing and inspection.

The Act provides for the designating of major consuming areas, under certain conditions. There has been considerable concern on the part of many people, and considerable misunderstanding regarding them. The request for the designation of an area must come from the area, either by the local or State governmental agency or by a representative group of the local poultry industry. When the Secretary has received such a request, he will make an investigation and probably hold public hearing to determine whether or not the area should be designated. The only reason for designating such an area is the fact that the amount of noninspected poultry in the area is of such volume as to interfere with the effective administration of the Inspection Act. Should the

Secretary decide that the area should be designated, we believe he would very likely go to Congress to determine if they would be willing to appropriate the necessary funds. After making a final determination that the area should be designated, he must publish the designation in the Federal Register and then there is a six-month period before the designation could become effective.

We do not see how such an area could be designated in less than about one year, and it will more likely be at least two years. Nor do we see much possibility that very many areas will be designated.

The Act provided four types of exemptions from certain parts of the Act:

1. The farmer producer, who raises his own poultry, dresses, and eviscerates it and sells only directly to the consumer, restaurants, hotels, and boarding houses for use in their own dining rooms and does not buy and sell poultry other than that raised on his own farm. He must, however, process this poultry under sanitary conditions;

2. The retail dealer who purchases inspected poultry, but who cuts the poultry up into parts and then sells it within the same store;

3. The third exemption is one in which the Secretary has the authority to make an exemption of a plant if he finds it impractical to provide inspection personnel and determines that the exemption will aid in effectuating the Act. This type of exemption, however, cannot be extended beyond July 1, 1960;

4. The fourth exemption is the religious dietary exemption. The only factor we have found here that will be exempted is the Kosher dressed poultry product. Upon application and justification from the Kosher processor with confirmation of the religious requirement from the proper clerical official, such exemptions will be granted.

Since September a year ago, the Department has promulgated final regulations on plant approvals, sanitary requirements, etc., which permitted us to start bringing plants under the mandatory program as of May 1, 1958.

Proposed Regulations covering imports, handling inventoried product, and exemptions are now in process of being developed. The Regulations have been discussed and explained at public meetings throughout the United States.

We have developed through Civil Service examination and recruiting procedures a Civil Service register from which to procure eligible employees.

We have been recruiting and training an expanded staff to supplement the field force available from the voluntary program. This training has consisted of schooling in classrooms and actual on-the-job training on inspection lines.

We have on record about 1,000 known plants. This is probably from 150 to 200 more than will need service, but we must prepare for the total load. We are continually studying this list to determine needs.

We have communicated with all plants by letter in August to inform them of the urgency in taking action:

1. To see that packaging and labeling materials are prepared and approved;
2. To have a final survey by October, if possible, to get plant approval;
3. To provide satisfactory water report;
4. To have chemicals used in plant approved.

We now have about 322 plants under the mandatory service, about 65 are still operating under the voluntary program, and about 200 are ready for final survey of physical facilities. Several firms have done regretfully little to get ready and a few have apparently done nothing.

The time is getting short, we expect to have inspectors available and we have no legal basis for extending the time beyond January 1, 1959.

I hope this has answered questions which may have been in your mind. However, I will be glad to try to answer any further questions which you have.

IMPROVING EFFICIENCY WHEN REMODELING TO MEET POULTRY INSPECTION REQUIREMENTS

Kenneth H. Brasfield
AMS, U. S. Department of Agriculture

I have been asked to talk on the subject of "Remodeling Facilities to Meet Poultry Inspection Requirements." This is a very broad topic and one that could keep me talking much longer than you would appreciate. Therefore, with your permission, I would like to narrow this subject to "Improving Efficiency When Remodeling to Meet Poultry Inspection Requirements." There are publications by the United States Department of Agriculture that explain in some detail the application of the Poultry Products Inspection Act. These are: "Questions and Answers on the Poultry Products Inspection Act," AMS-208; "Information for Applicants for Poultry Inspection," AMS-219; and "Remodeling Small Poultry Plants to Meet Inspection Requirements," AMS-256. If you do not have copies of these reports and would like to have copies, I will be glad to get them for you.

The reason for revising the subject is to point out that consideration should be given to the improvement of plant and equipment layout when remodeling to meet inspection requirements. A brief review of the rapid development of the poultry processing industry will explain the need for this consideration.

Not long ago, when many of our present processing plants were new, poultry was not marketed as it is today. Poultry moving through the succession of facilities from farm to consumer was mostly live or in New York dressed form. Processing plant layouts were based on processing methods then used and plants were built according to the facility needs of that period.

As the industry grew, processing grew. New plants were designed very much like others that were in operation. And still newer plants were patterned after these. This manner of plant designing continued and new plants became outdated almost before they were completed. Obsolescence of design was due mainly to the rapid swing toward drawn poultry and to tremendous increases in volume.

Perhaps the greatest mistake made in planning marketing facilities is that of planning them to meet past rather than future conditions. Facilities that are adequate at one time can become inadequate at another. Growth of production areas, changes in production methods, the form in which products are marketed, methods of transportation, population increases, labor costs, processing and handling equipment, and consumer habits are some of the factors that affect the adequacy of marketing facilities. These factors are constantly changing.

Many of our plants served well for live poultry and fresh New York dressed poultry, but they are not adequate for today's eviscerated, cut-up, and frozen products. In plants that were originally designed to assemble, dress, and pack poultry, some processors today are assembling, dressing, eviscerating, cutting-up, individually prepackaging, and freezing twice the volume in virtually these same buildings.

In many areas of the country present facilities for marketing poultry and poultry products serve inefficiently as outlets for these farm products. Some plants use too much hand labor because of the lack of handling equipment and methods that will do the job at lowest cost and still maintain quality. Others have tried to improve their operations by purchasing new equipment but have bought the wrong kind or are not getting the most out of it. Still others are trying to perform a modern operation in an antiquated building. In these times of high wage rates, labor productivity is being increased at many places in the marketing system. For example, many apple packinghouses have reduced their labor requirements by more than 50 percent through the introduction of better equipment and methods. Similar improvements are being made in some of our modern, poultry processing plants.

Only a few years ago, the processor's profit was made primarily in the buying of live poultry and the selling of finished product.

As the industry grew, processors began to realize the need and definite advantage of efficiency in processing. Today more attention is directed toward processing. Packers have found that saving even a fraction of a cent per pound regularly is more profitable than an occasional good deal in buying and selling.

Using improved processing methods is one sure way to help reduce processing costs. The proper balance of labor, equipment, and volume is very important. Astonishing costs can result from an unbalanced processing operation. This can be illustrated by a broiler plant having an operating cost of 1/2 of a cent per bird more than it should be. This is roughly 0.2 of a cent per pound. To you and me, buying our chickens one or two at a time at the retail store, this amount may not seem significant. But to the processor, running only 1,000 birds an hour, this extra operating cost amounts to $10,400 per year.

Processors have tried various ways to overcome high labor costs resulting from inefficient operations. For instance, a high temperature scald seemed to be an answer for reducing the cost of the dressing operation. A high temperature scald permitted the picking equipment to do a faster, cleaner job, thus reducing the amount of labor needed. But it was found, over a period of time, that this practice was detrimental to the product--especially to ice-packed poultry. The protection afforded the bird by the epidermal layer of skin was lost because this layer was removed as a result of the hard scald. Processors found that savings made were usually lost in product yield, shelf life, or quality and that low processing costs gained at the expense of product quality are of little value. The real answer lies in efficiency in processing, because the processor who puts out a good product, fairly priced, has the big competitive advantage.

Some poultry processors who are operating today with outdated facilities have a big problem in trying to compete with modern, efficient plants. As competition in the industry becomes greater and greater, many packers are altering their present facilities to permit operations that will reduce costs. Other processors, however, are reluctant to interrupt rigid schedules in order to make layout improvements, and still others are pretty much like me and the back porch to my home. It seems that every time I drag out the paint bucket, sounds of "The Football Game of the Week" or "Gunsmoke" delay the job until tomorrow.

Compulsory inspection can be a help to some processors in need of more efficient plants. It can give them an opportunity for improvement that probably will not come again.

The Agricultural Marketing Service made a study of poultry-processing plants in several areas of the country to determine what they required in order to comply with the regulations under the Poultry Products Inspection Act. It was found in this study that many plants affected by this legislation will have to make changes in their buildings or equipment in order to comply with the law.

Based on this study, it appears that more changes will be necessary for buildings than for equipment. These changes range from installing new floors to putting screens on windows. In cases where new floors are necessary it can be a simple matter to reinstall the equipment in a more efficient arrangement. Efficiency can be increased greatly in many instances by relocating one or two pieces of equipment. Making processing room walls impervious to moisture is one of the most recurring building needs. To resurface walls properly in some plants will require moving equipment. Since equipment has to be moved, why not replace it in the proper location? It would not be wise to invest time and money to resurface walls and six months later destroy this surface in order to relocate a scalder, rougher, or eviscerating line. Wall plumbing and wiring should be done before the new surface is put on.

Another consideration requiring attention is that sooner or later some plants will be compelled to increase their efficiency if they are to continue in business. Modern processing plants, well suited to their needs, are taking the business away from the antiquated plant. This problem will be solved through the construction of efficient facilities and plants that resist change will continue to lose business.

The marketing structure is changing. Throughout the distribution system the size of plants is increasing in order to get economies of scale. Processing plants are larger. Wholesalers are becoming fewer in number, larger in size, and they are handling a more complete line. The volume of business being done by some supermarkets is so large that fresh, ice-pack poultry is moving directly from producing areas to such stores almost 3,000 miles away, thus bypassing everything between the processing plant and the retail store.

These changes are only indicators of things to come. The number of people to be fed continues to increase. Expanding demand for poultry over the years is assured. The proportion of poultry moving to consumers in fresh, canned, and frozen form may continue to change, but the total volume to be moved will continue to increase. More processing will be done in the producing areas. The number of times products are handled in marketing channels may be expected to decline and the mechanization of handling will increase. Facilities will be modernized. The average size of marketing firms is likely to continue to increase--not so much by large firms becoming larger as by smaller businesses increasing in size. Further improvements in processing, handling, and transportation will come. The consumer will expect to have more services performed in the marketing system.

In solving remodeling and marketing problems, the ability of processors and marketing agencies to work together is highly important. Industry, enforcement, research, and marketing service agencies must work together as a team to find practical, economical, and acceptable answers to marketing problems. Any failure among the players on this team to work together costs money, and this cost will be paid by you and me, the consumer.

The present trend of economy in the poultry industry, and particularly in the processing phase, can be summed up in the statement a processor made to me recently. He said, "The only way to make a nickel in the poultry business today is to save it." Perhaps he is right. Poultry processors have a chance to improve and they have the desire to improve. We, as members of the team, should offer our combined efforts to help them adjust to changing marketing conditions.

CONCLUSIONS AND RECOMMENDATIONS

On the poultry inspection program

Recently enacted legislation requires that all processed poultry moving in interstate or foreign commerce shall be Federally inspected beginning January 1, 1959.

State marketing service agencies can and should provide assistance to processors within their States in complying with compulsory inspection requirements. A program designed to assist with facility planning and to give instructions in proper methods and procedures that should be followed to process and handle poultry to comply with sanitary requirements should be initiated.

It was stated that processors who wish to remain intrastate and not have their products identified with the Federal inspection legend are likely to lose such sales outlets as retail chain stores and others who may prefer to handle inspected products. Other intrastate plants, ineligible to receive inspection service under the Poultry Products Inspection Act, may also suffer from loss of certain retail outlets. The possibility of providing an inspection service at the State level for intrastate operators should be investigated. Close coordination of the State inspection service and the Federal inspection service could produce a State program recognized by and acceptable to, processors, retailers, and consumers.

Some poultry processors who are operating today with out-dated facilities have a big problem in trying to compete with modern, efficient plants. Many packers are altering their present facilities to permit a more efficient operation. Assistance should be given to these processors in developing improved plant and equipment layouts and improved processing methods that will help reduce processing costs.

State and local inspection laws and regulations should be standardized to the extent that trade barriers will not be created to adversely affect the intrastate flow of processed poultry.

OUR EXPERIENCE IN IMPROVING EGG QUALITY AT THE PRODUCER LEVEL

Gerald E. Zich
New Jersey Department of Agriculture

New Jersey egg producers asked the State Department of Agriculture in 1957 to aid them in developing a "self-help" marketing program which includes:

(a) Improvement and conservation of product quality through adoption of on-farm practices recommended for quality production and approved market preparatory methods.

(b) Improvement and conservation of product quality in channels of distribution.

(c) Impartial inspection to insure "12 good eggs per dozen" in every carton.

(d) Promotion to the retail trade and to consumers of the resultant packaged product under State certification of quality.

Gaining complete acceptance of topic (a) in the above scheme (the basic requirement of on-farm quality practices) was complicated by several factors:

1. Both old-time and new farmers were unwilling to attend the local, county-wide and State meetings at which quality improvement practices were demonstrated and taught. (New Jersey farmers just don't come to meetings any more--there are too many distractions. Those who do attend are not the ones who need the help we can give.)

2. Education on quality is difficult to dramatize, or to make personally significant to producers in a group. Individual treatment seemed to be indicated.

3. Quality improvement was being opposed by some who argued that producers should first be guaranteed premium prices, then they would adopt the recommended practices. The trade is adamant in that rewards will not be paid in anticipation.

4. Statements of several acknowledged authorities on eggs--to the effect that the quality standards are too high, and that the grades specifications should be lowered to permit minor faults to be included in the finished package--were widely published and quoted to the detriment of the program. These arguments are unrealistic, because of the newly created competitive situation with high quality egg supplies from new production areas "knocking on the door in the Jersey Market."

A new service of "on-farm quality surveys" was set up with funds jointly provided by the State program and the Federal Government. The Agricultural Extension Service and Agricultural Experiment Station cooperate closely and enthusiastically.

Three field agents are employed in this work. A score sheet was developed to report each farm survey. Factors scored are best shown by this modus operandi: Fieldman candles 100 eggs of each day's production found on premises, recording the percentage of each quality, and the faults; takes psychrometer readings for egg room temperature and humidity; inspects with ultraviolet light for fluorescing substances on floor, walls, grader, cleaner, packing materials (if second-hand) looking for clues to spoilage bacteria; checks accuracy of farmer's egg scales or mechanical grader; notes lighting conditions, environmental sanitation, cleaner methods (if wet clean methods are used, checks washing solution temperature, determines whether approved detergent sanitizer is used); observes and reports laying house floor and nest conditions. Size and age composition of flocks are recorded, along with rate of production, frequency of egg collection and shipping.

Preliminary findings are that these are the most common producer deficiencies:

1. Insufficient number of egg collections daily. (Those who clear nests twice a day are urged to make an extra collection. This pays for itself not only in better interior quality, but also reduces incidence of cracked, dirty, and stained eggs, saving work in egg room.)

2. Improper egg room climate--lack of humidification and temperature control. (Some egg dealers and marketing cooperatives have been encouraged to make loans to producers to install air-conditioning units.)

3. Improper wet cleaning methods, principally failure to use sanitizer, and too low temperature of washing solution.

PROMOTING PRODUCTION AND SALE OF QUALITY EGGS IN FLORIDA

Earl H. Nelson
Florida Egg Commission

Mr. Hermon Miller who was to speak to you at this time was unable to be here and secretary, Mr. Brasfield, asked me if I would fill in for him. I feel honored to have this opportunity to talk to you. Mr. Brasfield was kind enough to let me talk on the subject of my choice instead of the assigned subject.

First, I suppose I should tell you who I work for and what we are trying to accomplish. I am with the Florida Egg Commission. This Commission was recently enacted into law for the purpose of promoting the production and sale of quality eggs in Florida. We are a little over a year old now. We feel that we have accomplished a great deal in this short period of time. During this past year, according to the USDA market reports, the per capita consumption in Florida has increased 21 eggs or 8.2 percent. Possibly we should not try to claim credit for the entire increase, but being human we are going to try to claim all the credit we can.

The Florida Egg Commission is supported by an excise tax of 2 cents per case on Florida produced eggs. We also have some Federal and State Matching Funds available for egg sales promotion.

When you start out on a quality egg program where do you begin? Eggs, being a staple food item, are not hard to sell by use of advertising and other media. But, if we start at the retail level and send the housewife into a store to buy Florida eggs and she receives eggs of poor quality, chances are that the next time she buys she will look for a different source of supply. It is logical therefore, to assume that we should have quality eggs available for her before we send her into the store to make her purchases. This would indicate that a quality egg program should be started at the producer's level and that the laws governing the grading of eggs should be strictly enforced. If all eggs were purchased on a grade back basis, I am sure that the producer would strive to produce a better quality egg as it would have a visible effect on his income, and it costs him very little, if any more, to produce a quality egg.

To determine the quality of the eggs being offered for sale in the retail stores, the Florida Egg Commission worked with other State agencies and conducted an egg survey in four Florida cities. I do not have these figures with me but we found that the quality of most of the eggs were below the declared grade on the carton. This included both Florida and shipped eggs. In making this survey, we used the Haugh unit for measurement of quality. I assume that most of you are familiar with this method of determining the interior quality of eggs. If you are not familiar with it, however, I would suggest that you write to the USDA Poultry Division, AMS, and obtain their booklet "Equipment and Methods for Egg Quality Control Programs."

This booklet outlines the material and equipment necessary to measure egg quality by Haugh units. We were able to purchase all of the equipment except the breaking table. The USDA did not have plans for making a breaking table and were unable to tell us where we could purchase one. We used the picture in the booklet and had one built locally. We are fortunate in having a vocational school in Tampa and they built the table for us along with a carrying case. As the table consists of a large piece of plate glass and a mirror, a good substantial carrying case is necessary to avoid breakage. I have this case and table with me and will take a few minutes to show it to you. The boys at the vocational school are very ingenious and I think they made a very compact and workable unit.

All the necessary equipment such as micrometer, egg scales, spatula, and calculator are included in the package and mounted in such a way that it can be shipped without danger of breakage. As a vocational school charges only for material and shop use, the cost was very low.

At the present time we do not have a plan for this unit, but I think we could have some made up if any of you are interested. As all of you know, one of the things of prime importance in any kind of a program is money. I think that I can safely say that by cooperation with other State and Government agencies and through the press and trade journals, we have received at least $50 worth of advertising for every dollar we have spent.

We developed a cooperative program with the Department of Agriculture, Extension Service, Poultry and Egg Inspection Department, School Lunch Supervisors, USDA, Vocational Agriculture Department, etc. We also assumed the egg producers' Poultry and Egg National Board quota for the State of Florida.

Most county agents and home demonstration agents have a half hour or more free time on radio or television each week. In a program of this nature, it doesn't take long for them to run out of material. We furnish them scripts for these programs and at times take their place. We also make tapes that can be used on radio. These are all directed toward the production and sale of quality eggs.

We find food editors of newspapers and magazines are constantly in search of material. Through Poultry and Egg National Board, we furnish them with color transparencies and material on eggs. If we had to pay for the amount of publicity we have received through this media, our budget would have been used up in a month or two. We recently had a story on eggs in a Sunday magazine with 450,000 circulation. This consisted of the front page and the two center pages in color. All we supplied was the pictures and material.

We work closely with 4-H and FFA, and this year we have managed to include egg grading and candling classes in five large fairs. In this connection, we have published a booklet on egg grading and candling to assist vocational agriculture teachers and county agents in training their members in this art. We have conducted egg cookery schools for 4-H girls and girl scouts. We have cooperated in the production of two egg quality films and have two more on the way. These were produced by the University of Florida staff and our only cost was the film used.

We have attractive fair kits available which we loan out for fairs. We are constantly feeding educational material to poultry associations, vo-ag teachers, county agents, home demonstration agents, etc. We have developed some visual aids for use when talking before groups of people. As an example we have a large egg with the component parts cut out jigsaw fashion. When talking before a group, you can start with the yolk and build the egg as you talk. We appear before poultry associations and civic groups as often as possible.

In conclusion, Florida produces 56 percent of the eggs used in the State. The other 44 percent is shipped in from out of State. Our poultry business continues to grow but at the present time our increased production is just about taking care of our population increase, percentage wise. The ratio between Florida-produced and shipped-in eggs has remained about the same for the past three years. I note that most of the States represented here have already adopted or are embarked on a quality egg program. If we all continue nationwide to stress quality in our product, we need have no fear for the future.

CONCLUSIONS AND RECOMMENDATIONS

On the changing marketing system for eggs

It was pointed out that great strides have been made over the past few years in egg marketing. Production has evolved from small farm flocks incidental to the farm interprise to that of being a commercial egg factory. Similar advances have been made throughout the egg marketing system. Grading and packing plants are fewer in number, larger in size, and processing is moving to production areas. The present trend is toward still larger producing flocks, quality control at the production level, and fewer, larger, more efficient and mechanized processing plants. Federal and State regulatory and marketing service work has become more complex and considerably more flexible.

Close cooperation between producers and processors stimulates marketing efficiency. With better quality and more orderly procurement methods, labor productivity increases. Larger grading and packing stations contribute to reducing marketing costs through economies of scale.

Egg consumption can be increased with better quality, more attractive packaging, accurate quality identification, improved merchandizing practices at the retail level, and better use of nutritional information and promotional material.

Regulatory and marketing services should be reevaluated at both State and Federal levels so as to be better coordinated with progressive methods of present day egg marketing.

DAIRY PRODUCTS

Work Group Sessions

CURRENT PROBLEMS AND POLICIES IN ADMINISTERING FEDERAL MILK ORDERS

Howard C. Feddersen
AMS, U. S. Department of Agriculture

The country's experience with Federal regulation of fluid milk markets has now passed the quarter of a century mark. In the nearby market of St. Louis, where a marketing agreement and license were first issued in November 1933, the experience has been continuous. Federal responsibility has developed to the point that in 1958 more than 2,000 handlers, 180,000 producers, and 36 billion pounds of milk will be directly involved. There is no evidence that the fluid milk orders culminate here. On the contrary, the requests of a number of additional market areas are in various stages of development to add to the 75 areas presently covered.

These remarks are made with no thought of observing any kind of anniversary. They are made, rather, with the idea that they constitute, in a rough sort of way, some standard for evaluating the magnitude of current problems in the administration of Federal milk orders. Each of these market orders must be kept in adjustment with the changing institutions and times peculiar to the market, each requires a close alignment with other market orders and in particular with those of bordering markets and, in accommodating change, must do so in a fashion consistent with the evidence introduced at public hearings and with general economic conditions. In accomplishing this, no circumstance appears to afford more possibilities for administrative difficulty for the Federal orders than bulk and scope of the program, unless it be a failure of responsibility on the part of producer groups for whom the program was, in the first instance, designed. Producer cooperatives share a unique responsibility in the development of Federal milk orders, which must be exercised within the framework of existing statutory authority.

The milk orders are at one time both a regulation and a marketing service. Their major purpose is, through a limited intervention in the marketing process, to establish and maintain orderly marketing conditions. 22/ A further objective also is to "accord recognition and encouragement to producer-owned and producer-controlled cooperative associations..." 23/ presumably on the premise that this will also contribute to more orderly marketing.

Participation on the part of the Federal Government turns around specific devices specified in the delegation of authority to the Secretary which contemplate (1) the classification of milk according to the form in which or the purpose for which it is used, (2) the establishment of a minimum price to be paid by handlers to producers for each class of use, (3) a return to producers based on total market uses or on individual-handler uses, and (4) provision for check weighing and testing milk and providing marketing information for producers not receiving this service from qualified cooperatives. The statutory directions for the fixing of prices are significant for the purpose specified, since they are to be prices which reflect economic conditions which affect market supply and demand for milk in the marketing area.

Although not specifically mentioned by the statute, orders all contain a provision, comparable in importance with these other mechanisms for effecting market stability, which charges each administrative agency with the duty of preparing and making available to all market interests and to the general public general statistics and information concerning the operation of the order. This action is in accordance with statutory authority for the development of terms and conditions which are incidental to and necessary to effectuate the delegations already mentioned.

Certain privileges are also extended to qualified cooperatives. Among them, the right of reblending proceeds from the sale of milk in all markets and distributing the returns among members in accordance with membership contracts is specified. This is an interesting section, for the reason that it is not clear how a cooperative would be able to continue in business if it were not permitted this privilege. This privilege is accorded only so long as cooperatives do not sell milk to any handler at less than class prices. The condition is essential to the continued existence of the orders and to the accomplishment of their purpose.

22/ 7 U.S.C. S602(1) Declaration of Policy.
23/ 7 U.S.C. S610(b)(1).

It is obvious, for instance, that the survival of the orders depends on the application of minimum class prices which are uniform among handlers, not only as a condition expressed in the statute, but as an actual market fact.

It should also be apparent that the general theory and enforceability of any system of enforced minimum prices rests on a genuine cleavage of interest as between buyers and sellers. The fate of the Volstead Act illustrates well how difficult it is, as a matter of law, to keep eager buyers and willing sellers apart. The problem of the buyer-seller relationship is particularly complicated in the fluid milk field by the fact that some cooperatives also act as processors and distributors, and, to a lesser extent, certain individual producers also function as handlers. If the industry were to function completely, or even to a substantial extent, on such a vertically integrated basis, there would be little foothold for the establishment of prices to be paid by handlers to producers.

The roots of any shading of prices on the part of producer groups generally are not embedded, however, in a market's organizational pattern. Opportunity must exist for securing something of value in exchange for the sale of milk at depreciated Class I prices. A fertile field for this sort of bargain exists in the presence of unduly high Class I prices which induce a supply of milk in excess of market requirements, and which develops a substantial gap between the level of the market blend and Class I prices, or between the blend and price paid near-at-hand producers for manufacturing milk. In such an environment, shading of the Class I price may increase returns to a particular producer group by enabling them to secure a share, or a larger share, of the higher valued Class I market.

The potential for this kind of development, and the basic incompatibility of market stability and class prices set at levels higher than economic conditions warrant, is described in Bulletin No. 1184, Classified Pricing of Milk, published by the Department of Agriculture in April 1958. In terms of this analysis, the long-continued existence of the Federal orders, in fact their survival over a period of 25 years, offers evidence of the extent to which the program of Federal regulation has carried out the instructions from Congress to price milk in accord with supply-demand conditions. Recently, however, producer organizations, having grown strong in numbers and in the exercise of marketing responsibilities, have been able, in many instances, to negotiate substantial premiums over order prices.

Over short periods of time, if the elasticity of the demand for milk on the part of consumers and of the production of milk on the part of producers is what it is reputed to be, the achievement of substantial premiums over order pricing might not impose a substantial strain on the stability of any market. However, no milk market is in the present day, to paraphrase an ancient quote, an island. The elasticity of the demand for milk on the part of consumers in one marketing area is no measure of the elasticity of the demand for milk by distributors operating in several areas, who are able to substitute milk from other sources as compared to milk emanating from local producers. Further, the production response of producers to a given price is no measure of the elasticity of supply response which may result from the availability of milk in a larger area. In this kind of environment, the negotiation of premiums requires the most serious consideration if they are not to pose a threat to the orderly marketing which the Federal regulation is intended to accomplish. The use of the orders to undergird a structure of premiums also imposes some political strain on the structure of Federal regulation, but does not presently appear to equal the dangers that may develop purely as an economic consequence.

The equilibrium of the markets under Federal regulation is also dependent upon timely revision of the regulations to accommodate the march of events in the fluid milk industry. The necessity of such adjustments has always been contemplated by administrators of the program, but the growth of the orders, in terms of their numbers and in the complexity of their provisions, coupled with the rapid evolution of the milk business, has developed difficulties.

In this respect, the problems are not exclusively that of the administration of the program. The development of the Federal orders is required to be based on evidence introduced at public hearing. In this, the Secretary can exercise his "expertise" only to the extent that evidence is presented for the record, mainly by other persons. Except for statistical information, the evidence introduced is a product of the thinking of the community of producers and handlers and since the experience and, hence the progress of ideas, in each such community differs, the problem also becomes complicated and involved insofar as timing and the adjustment and alignment of the various orders are concerned. So far, however, the obsolescence of order provisions has not been allowed to become the greater part of our difficulties.

In the execution of Agricultural Marketing Agreement Act responsibilities, the definition of a market has become troublesome. This is simply the question of where a market begins, or more significantly, where it ends. Since regulation is applied to handlers on the basis of the area in which they market, the question is important.

Not too long ago, dairy farmers not only milked cows, but also, as a general proposition, acted as their own distributors, selling their own milk on routes to individual consumers, tying their consumers to them with the bonds of personal acquaintanceship. The stability of these relationships was nearly the equivalent of the stability of his market, in which each farmer had reason to enjoy a certain sense of possession.

We are all aware, without dwelling on the circumstances, of the developments in the fields of transportation, sanitation, and processing which transformed the shape of these markets from the circle of a man to the circle of a community This was the general area of regulation in the period in which the Federal experience began.

Examination of the order titles, as for instance, Appalachian, central Arizona, Inland Empire, Red River Valley, southeastern New England, upstate Michigan, Puget Sound, as compared to the earlier designations, generally in the names of the cities affected, will give some indication of a new phase of specialization within the industry which is expanding markets beyond community limits. It is not yet apparent how far specialization will run. It seems entirely possible, for instance, that the present-day handler will become eventually only a processor of milk, with the function of distribution in the hands of other specialists. In such a case, home delivery routes might be operated by skilled independent vendors or peddlers, with the large bulk of sales finding their way to the consumer through the supermarkets or other chains. In central Illinois we find now one of the so-called "white milk plants," at which none of the specialty products are processed. The efficiencies of specialization and of volume processing are apparently such as to overcome transportation costs involved in the delivery of milk over a wide area, for it is understood that milk from this plant is distributed in 38 counties of Illinois, including the county in which the city of Springfield is located.

Distribution of this kind encounters similar patterns of distribution from other plants, and it becomes impossible to define an area which will embrace within its limits the total operations of all affected plants, and at the same time afford a common plan of pricing. The best that can be done is to prescribe market area limits, subject to later adjustment, which will for the time accommodate the bulk of the distribution for the bulk of the regulated handlers.

Within these limits there will be found handlers whose market is, in large or small degree, outside the confines of the market, as defined. For this reason, the orders must prescribe, for the purpose of imposing pricing or pooling responsibilities, indicia of regulation going beyond the sale of a quart of milk within the marketing area. These indicia are drawn in terms of the degree of identification with the market area. If the degree of identification is sufficiently limited, then the obligations and opportunities of pricing and pooling are correspondingly limited.

This indicates the necessity of finding some middle ground between complete application and complete exclusion from order affairs. It inquires not at all into the problems involved in finding a satisfactory device for partial regulation. Such a device requires freedom of action for the handler at his home base, yet requires assurance to all fully regulated handlers that no advantage is permitted him on that minor percentage of his sales within regulated territory. So far, no more satisfactory mechanic has been devised than those which require a "compensatory payment" on the volume of milk sold within the marketing area. In certain market pool areas, where no advantage may be derived by a release from the obligations of pooling, the option may be afforded the fringe handler of making a compensatory payment or of affording by audit a guarantee that he has paid producers at least the equivalent of order class prices. In all of these situations, certain assumptions must be indulged on the basis of evidence received at the hearing, which may or may not be completely in keeping with the particular handler's individual situation. As a result, these devices are subject to much current controversy. All of the alternatives are difficult, and it is only possible to say that, in general, the alternatives adopted are those which are more palatable than the extremes of complete freedom and complete regulation.

The nebulous character of the market outlines will also demonstrate a corollary problem, to which reference has previously been made, that of precise identification of the supply available to the market and the demand for milk. The lack of transportation facilities and reciprocity in the application of the health regulations no longer limits supply in most months and in most markets to the volume of milk available from locally inspected producers. Concentration of the facilities for procurement and transportation in the hands of producers' organizations likewise makes milk more freely available wherever a Class I market exists. Orders are drafted so as to facilitate the free movement of milk between Federal order markets. Experience indicates such movements to be a compelling condition of fact and not a theory.

As one consequence, the market pricing structure cannot be designed around purely local conditions of supply and demand. Wherever price formulas are developed by the construction of a differential to be added to values for manufacturing milk, and this condition governs in all but eight markets, this differential must be established with one eye turned on costs of transportation of milk of good quality from areas of surplus supply. Observation of this necessity is resident in the phrase "price alignment." It is sometimes lightly said, as a result, that it is possible in certain areas of the country to be equipped only with a knowledge of Class I prices and transportation rates, in order to tell how far you are from Chicago.

It is also necessary to tie in the movement of milk among regulated markets and between regulated and unregulated markets on the part of producers, as well as the shipments from plants. This is not too simple a matter, inasmuch as the producer himself, shipping in bulk tank trucks, may well not know on a day-to-day basis where his milk is likely to go. Procedure for the identification of a producer with a market may well require revision to the point where, once a producer's milk is received in a market during the short period, assignment of his milk for accounting purposes may be required for the balance of the year. The point of pricing also becomes complicated by the bulk tank operation. Numerous studies are in progress to consider whether the administrative problems involved in the pricing of milk at the farm become too great a burden, and, if so, what the feasible alternatives may be.

It should be apparent from this review that the policies involved in the application of the Federal orders for tempering the economic insecurity of the milk producer and for achieving a degree of stability in the marketing of milk are not those of the strait jacket. A reasonable and timely adjustment of the orders to economic events is contemplated. The amendment of orders is a regular process and at least one hearing per year per order is planned for this purpose. This process is, of course, dependent upon the introduction of necessary evidence on the part of producers and handlers. It should also be kept in mind that these orders are installed and maintained in the markets on an invitation basis only. To the extent that they exist and are maintained, however, they must effectuate the policies expressed in the Act, and the Secretary's findings that they do so effectuate the purposes of the Act must remain a living and enduring purpose of the Federal regulations.

POSSIBLE BENEFITS AND LIMITATIONS OF THE SELF-HELP PROGRAMS IN THE DAIRY INDUSTRY

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At the outset it seems to me that there are certain prerequisites to any meaningful discussion of the "possible benefits and limitations of self-help programs in the dairy industry." The dairy industry consists of at least three groups of persons who have a vital interest in its economic welfare--producers of milk, processors and handlers, and the labor force engaged in processing and distributing milk and dairy products. Closely associated with these groups in terms of interest in the economic conditions of the dairy industry are the millions of consumers who use portions of their income to purchase milk and dairy products. The benefits and limitations of any self-help program are very unlikely to be the same either in direction or magnitude for all of these interested groups. Therefore, it becomes essential that the area of discussion in this paper be more specifically defined.

It has now been more than 10 years since it was my good fortune to hear the President of the National Milk Producers Federation explain the "self-help program" then being sponsored by his group. In general, the objectives and procedures enunciated at that time have also been the essential elements in self-help programs subsequently proposed and sponsored by the Milk Producers Federation, including the House of Representatives Bill HR 10043 which was introduced January 16, 1958, by Representative Abernethy, and sponsored jointly by the National Milk Producers Federation and the National Grange. Therefore, for purposes of the following discussion, the possible benefits and limitations in question shall refer to those specifically desired by sponsors of HR 10043 together with consequences that this legislation, if enacted, might have on other interested parties. This particular "self-help" program was proposed less than a year ago and considered by the 85th Congress, second session. Hence, it is only logical to use the existing dairy situation and price support program as a point of departure for analysis of "possible benefits and limitations." Further support for using the present situation and program as a point of departure may be derived from the fact that the reasons given for introducing HR 10043 were (a) the present support price level (January 1958) is too low, and (b) dairy farmers of the United States have been, and are being, criticized as recipients of a subsidy from the general public under the present program. It seems appropriate, therefore, that this presentation begin with a brief summary of the current price support program as it has evolved since the end of World War II.

Highlights of the Current Price Support Program

During World War II Congress decreed that most agricultural products, including milk and dairy products, should be supported at not less than 90 percent of parity until the end of the second year following the cessation of hostilities. The Agricultural Act of 1948 continued the support of dairy products at 90 percent of parity through 1949. The Agricultural Act of 1949 required the

Secretary of Agriculture to support prices of milk and butterfat between 75 and 90 percent of parity, and under this authorization the support level was set at 90 percent for the 15-month period beginning March 1951. This 90 percent of parity support level was continued through the marketing year 1953-1954, but subsequently reduced to 75, 80, 84, and 83 percent of parity for the marketing years 1954 through 1958. On April 1, 1958, the support level was again reduced to 75 percent of parity where it now remains.

Subject to a few minor exceptions, the support price for milk and dairy products has been made effective by purchases of butter, cheddar cheese, and non-fat dry milk powder at prices designed to reflect the parity level on milk for manufacturing purposes. Currently, this level is $3.06 per hundredweight for 3.5 percent milk.

The lowest volume purchased in terms of milk equivalent in the postwar period was 13 million pounds in the calendar year 1951. In 1952, the quantity taken under the support price program was 348 million pounds milk equivalent, and during the same year total sales of milk and cream by farmers on a milk equivalent basis amounted to 97.7 billion pounds. In 1953, milk production in the United States jumped 6 billion pounds, from 115 billion to 121 billion. This was the largest increase in milk production from one year to the next which ever occurred in the United States, and resulted in government purchases under the support price program of almost 10 billion pounds. Purchases in 1954, amounted to over 9 billion pounds for milk equivalent and subsequently leveled off in the neighborhood of 5 billion pounds a year until 1958. The present prospect is for a decrease in quantities taken by the government during this calendar year. During the past 10 years, the total cost of the acquisition of dairy products by the government under the support price program has been in the neighborhood of 2 billion dollars. Specific limitations in the disposal program designed to prevent government holdings from materially depressing current market prices have reduced the possible return to the government from disposal of C.C.C. stocks. As a consequence, the net expenditures of the government for the support of dairy products prices during the past 10 years has been in excess of 1½ billion dollars, averaging 20 cents per hundredweight on all milk sold and ranging from 0.2 cents in 1951 to 42 cents in 1954.

Dairy products prices substantially lower since 1952 despite the government price support program: During the calendar year 1952, when government purchases amounted to only 348 million pounds out of total sales approximating 97.7 billion pounds, farm prices for milk averaged $4.58 per hundredweight and cash receipts were almost 4.6 billion dollars. The 6-billion pound increase in milk production for 1953 was reflected in a total volume of sales slightly in excess of 104 billion pounds. The average price declined to $4.19 per hundredweight and cash receipts for the sale of 6 billion pounds more milk than in 1952 were down to 4.4 billion dollars. This decrease occurred in spite of support price equal to 90 percent of parity and government purchases approximating 10 billion pounds milk equivalent. By 1957, total sales of milk by farmers had increased to 113 billion pounds, the support level was down to 83 percent of parity, and the average return per hundredweight to farmers was $4.10. The decline in price of 58 cents per hundredweight from 1952 to 1957 was not sufficient to offset the increase in volume of almost 15 billion pounds, and cash receipts for the first time since 1952 were slightly in excess of 4.6 billion dollars. Thus, during the years from 1952 to 1957,inclusive, farmers were selling from 6 to 10 billion more pounds of milk annually, at least half of it to the government, and were receiving cash receipts below the 1952 level, while the sale of 15 billion pounds more milk in 1957 over 1952 was required to return approximately the same number of dollars in cash receipts.

As previously indicated it was this declining price level for milk from 1952 through 1957, together with the criticism leveled at farmers as recipients of almost a billion and a half dollars in Federal subsidies which prompted the National Milk Producers Federation and the National Grange to re-submit the "self-help" program once again as special price support legislation for the dairy industry. Additional impetus was given to these reasons by the fact that by January 1958, the Secretary of Agriculture had announced a new dairy price support level of 75 percent of parity for the marketing year April 1, 1958 to March 31, 1959.

Purposes of the Self-Help Program

According to its sponsors, the specific purposes to be achieved by the self-help program were (1) To raise the level of farm prices for milk and to increase incomes of dairy farmers above the level prevailing in 1957 and anticipated in 1958, (2) to stabilize prices and incomes of dairy farmers, (3) to shift the cost of surplus disposal from the general public to dairy farmers, and (4) to remove the administration of the dairy price support program from the Office of the Secretary of Agriculture.

Essential Features of the Proposed Program

In order to accomplish the purposes of its sponsors, the proposed program was designed to reestablish a support level of 90 percent of parity. This was to be made effective by purchases of cheddar cheese, butter, and non-fat dry milk solids at prices which would reflect the desired milk price level to producers. To this extent it was just the same as the program which had been effective through 1952 and 1953; however, the method of operation was to be entirely different. Administration of this program was to be placed in the hands of a quasi-government board recommended by dairy farmers and appointed by the President. This Federal Dairy Stabilization Board was to consist of 15 members who must be either milk producers or officers of dairy cooperative associations or of federations or marketing agencies owned and controlled by dairy cooperative associations. Not less than 11 of the 15 members of the board must be milk producers. The proposed legislation contained specific provisions concerning the operations of the board, its representativeness, remuneration of members, and general mode of operations.

In order to stabilize prices of milk and butterfat to producers, the board was authorized to borrow an initial operating fund from the Commodity Credit Corporation not to exceed 350 million dollars. It was anticipated that this sum would be sufficient to acquire all of the "surplus" milk available for acquisition by the board during the first year of operation. The disposition of stocks of butter, cheese, and non-fat dry milk solids accumulated by the board under this program was to be somewhat less restrictive than those currently determining disposition by the Secretary of Agriculture of accumulated Commodity Credit Corporation stocks.

Following the initial advance of Commodity Credit Corporation funds to the board, operating costs of acquisition and handling of surplus dairy products were to be defrayed by means of a 25-cent-per-hundredweight-deduction by the first handler from sales of milk and/or butterfat by every milk producer in the United States. If production were stimulated and/or consumption restricted enough to require a deduction of more than 25 cents per hundredweight from all milk producers, the board was obligated to put in operation a base and surplus plan designed to curtail total milk production. Subsequent deductions for surplus disposal were to be much less stringent upon base milk and on milk produced in excess of base. In this manner, the burden of handling and controlling surplus milk under the proposed program was to be shifted from the general public to American milk producers. Finally, milk producers would have opportunity by referendum to accept or reject this proposal.

Principal Issues

Testimony before the sub-committee on dairy products of the House Committee on Agriculture in May 1958, clearly established four major points. (1) Sponsors of the proposed legislation were confident that if HR 10043 were enacted it would accomplish the objectives and purposes for which it had been prepared, while opponents of this plan were equally certain that these objectives would not be accomplished. (2) Much of the criticism of the proposed plan was predicated upon the recommendation that a support level of 90 percent of parity should be established during the first year of operation, but sponsors of the legislation were quite willing to consider a lower level of support even to 80 percent of parity. (3) At the proposed 90 percent of parity support level there was an exceedingly wide divergence of estimates between sponsors and opponents of the proposed legislation concerning its probable creation of surplus and cost of surplus disposal. (4) There was also a wide difference of opinion concerning the probable effectiveness of a base surplus plan in controlling surplus production stimulated by 90 percent of parity support level.

Anticipated surplus and cost of disposal: Five persons, all of whom have had extensive training and experience in the economics of the dairy industry, presented testimony on the self-help program. Two of these gentlemen were in favor of the legislation and estimated that during the first year of operation approximately 6 billion pounds of "surplus" milk would be taken by the Board at a total cost of 275 to 300 million dollars. Estimates of the three gentlemen who appeared in opposition to the "self-help" program were that the total surplus would range from 12 to almost 24 billion pounds and that the total cost of acquisition would be a minimum of 700 million dollars and a maximum of $1,300,000,000. Since all of these witnesses have had extensive training and experience in dairy economics it becomes of interest to examine the basic facts and premises on which their widely differing estimates were predicated.

The same figures were available to all on production trends, quantities of milk equivalent taken by the government, total quantities of milk sold by farmers, and costs of the government acquisition program during the past years. In addition, they were all agreed that a 90 percent of parity support level on manufacturing milk would amount to $3.98 per hundredweight. They were all aware also that under existing program, the support level for the marketing year 1958-1959 was to be $3.06 per hundredweight.

In addition to the $3.98 per hundredweight figure, which the support prices established for butter, cheddar cheese, and dry non-fat solids were to reflect for manufacturing milk, opponents of the proposed legislation added approximately $1.50 per hundredweight of milk equivalent for processing and storage of the products taken by the government. Their total acquisition cost estimates ranged from $5.50 per hundredweight to $5.80 per hundredweight. The unit acquisition cost estimated by sponsors of the legislation was somewhat below this level but above the $3.98 per hundredweight which was to go to producers.

Disagreement on elasticity of demand and supply for milk: The major differences, however, between these analysts who were engaged in attempting to estimate the effects of the proposed program were in their conclusions concerning the impact of the program upon supply policies of producers, on the one hand, and the quantities purchased by consumers on the other. This area of disagreement concerning the demand and supply elasticity for milk at the retail level in the first instance, and at the producer level in the second, is implicit in most of the controversy which has raged among advocates and opponents of farm policy legislation generally during the past decade. Sponsors of the "self-help" program presumed that the effect of increasing the support price for manufacturing milk 92 cents per hundredweight during the period April 1, 1959 to March 31, 1960,would have a negligible effect upon total milk production during that period. This conclusion was reached in spite of the fact that the proposed increase would be public information as soon as the referendum had been held in September 1958. Likewise, their conclusion was that the increase in retail prices associated with a raise of 92 cents per hundredweight to producers would not influence the consumption of milk and dairy products during the coming year to an appreciable extent. Thus, by assuming an extremely inelastic schedule of demand for milk and dairy products and an equally inelastic supply schedule for milk, it was concluded that "we now have about a six-percent surplus. We feel that it would be virtually impossible to crank up more than that in one year at present prices or at prices contemplated under this Bill. We can remove from the market all that six billion pounds, and--well, our figures are 23.47 cents per hundredweight."

It seems apparent, from the foregoing, that the sponsors of the "self-help" program arrived at their conclusions concerning the 6 billion pound surplus anticipated for the marketing year 1959-60 and the 25-cent-per hundredweight deduction which would be required from all milk sold by producers in the United States primarily because of their conclusion that producers would respond very slowly to the higher price in terms of increased production, and that consumers would be equally slow in reducing their purchases as result of increased prices for milk and dairy products at retail.

On the contrary, opponents of HR 10043 estimated increases in milk production ranging from $2\frac{1}{2}$ to as high as 12 percent during the period April 1959 through March 1960, as a result of an increase of 92 cents per hundredweight in the producer support price, to be announced in September 1958. This group of analysts also estimated that the increase in retail prices for milk and dairy products would reduce total consumption from 3 to 8 percent. In this fashion, opponents to the proposed legislation doubled the 6 billion pound surplus estimated by sponsors of the self-help program as result of an expected increase in production, and tripled this surplus estimate by assuming that consumers would substantially reduce their purchases as a result of higher retail prices.

As a consequence, the members of the Dairy Subcommittee of the House Agricultural Committee were faced with testimony which estimated the cost of surplus disposal from a low of $300,000,000 during the first year to a high of almost one and one quarter billion dollars. The difference was primarily due to the divergent answers to these two questions: (1) What will producers do when prices go up 92 cents per hundredweight? and (2) What will consumers do when milk prices go up 2 cents per quart and manufactured dairy products an equivalent amount?

Production control: The authors of HR 10043 contemplated the possibility that production might increase and/or consumption might be reduced as a result of the proposed 90 percent of parity support level. Therefore, the Bill included a provision for the implementation of a base and surplus quota plan in the event that the anticipated cost of operating the program should exceed 25 cents per hundredweight on all milk sold.

The dairy industry has had many years of experience with base and surplus plans designed to induce more uniform seasonal production of milk for fluid use. This type of quota program is generally recognized as a base surplus plan with an "open base." A plan establishing an "open base" provides that each individual farmer shall have a base and receive a considerably lower price during a given year for all milk produced in excess of his base. The base is determined during the months of short production, usually the fourth quarter of the calendar year. This base is "open" because it can be changed each year by expanding production during the base-making period.

This type of control plan has worked quite effectively in creating more uniform seasonal production in fluid milk markets but has not been effective as a means of controlling over-all output. In fact, there is some reason to believe that the efforts of farmers to improve their base position from year to year result in an actual increase.

The dairy industry has had some experience also with a base and surplus plan designed to control total production by "closing the base." Under this system each farmer is assigned a base predicated upon his output during a particular past period, and continues to operate with this base indefinitely unless he can show that he is suffering an undue hardship. Such a plan was contemplated under HR 10043 which provides that a base shall be assigned to each producer desiring to market milk or butterfat. The Board was to provide rules for handling of these bases including such matters as transfers, bases for new producers, and adjustments for hardship.

Sponsors of the proposed program were confident that such a "closed base" system could be used for controlling the output of all dairy farmers. Opponents to the measure were quite sure, on the other hand, that the problems of operating a nationwide quota system would be virtually insurmountable, and even if the program could be effectively administered it would reduce farm efficiency and create great inequities among dairy farmers. Finally, it was contended by the opposition that a quota system would not successfully control output unless the tax on over-quota milk was established at a prohibitively high level.

The non-government dairy stabilization board: It was contended by sponsors of the proposed program that a stabilization board made up of persons nominated by milk producers and consisting primarily of dairy farmers could more efficiently and effectively administer a dairy price support and surplus disposal program than a department of the U. S. Government. This board would consist predominantly of men engaged in the business of producing milk and the remaining members would be intimately associated with milk production and disposition. Therefore, a much greater familiarity with and sympathy for the problems of the dairy farmer could be expected to enhance the effectiveness of such a group in handling a price support and surplus disposal program for the dairy industry.

At the other extreme, opponents to the proposed self-help program visualized the board as an independent agency not subject to any supervision by Congress, the President, or the Secretary of Agriculture, but given extraordinary powers to "buy, sell, give away, hold, store, warehouse, manufacture, process, service, package, advertise, and transport dairy products." Coupling these powers with the added authorization to borrow as much as 350 million dollars from the Commodity Credit Corporation without security, leads the opposition to conclude that the effect of HR 10043 would be an outright grant of 350 million dollars of Federal Government funds to an independent agency authorized to do pretty much as it desired in the acquisition and disposal of surplus milk and in the control of milk production.

Evaluation

The record shows that in 1952, with a 90 percent of parity support level for manufacturing milk, total production was almost 114.7 billion pounds. The same year farmers sold 97,672 million pounds of milk at an average value of $4.68 per hundredweight. Only 348 million pounds of milk equivalent went to the government under the support program, leaving 97,324 million pounds for domestic consumption (assuming an approximate balance between exports and imports).

In 1953, farmers increased their production almost 6 billion pounds and sold 104,109 million at $4.19 per cwt., but dealers sold 9,981 million pounds milk equivalent to the government under the support program. Therefore, domestic consumers took only 94,128 million pounds of milk even though the unit value to producers was down almost 50 cents per cwt. Thus, from 1952 to 1953 farmers increased their output and sales about 6 billion pounds, but all of this increase plus an additional 4 billion pounds was taken by the government under the support program.

In 1954, sales of milk increased over 1953 almost 3 billion pounds, and the value to producers again declined to $3.86 per hundredweight. Government purchases amounted to 9,144 million pounds and domestic consumers got 97,570 million pounds, almost exactly the amount that they took in 1952 when farmers received 82 cents per hundred pounds more for their milk. During the period from 1955 to 1957, the quantities taken by the government under the loan program declined to approximately 5 billion pounds; the support level increased from the 75 percent of parity equivalent of the marketing year 1954-55 to between 80 and 85 percent of parity, and milk production continued to increase until it reached 126.4 billion pounds in 1957. As a consequence, quantities taken by consumers increased from approximately 95.6 billion pounds in 1954 to almost 107 billion pounds in 1957. However, this increase in domestic consumption of almost 10 billion pounds milk equivalent in a three-year period occurred while prices received by producers were going up from an average of $3.86 per hundredweight in 1954 to $4.10 per hundredweight in 1957. Thus, domestic consumers used practically the same quantity of milk in 1954 when farmers were getting $3.86 per hundredweight as they did in 1952 when farmers were getting $4.68 per hundredweight, and then increased their consumption by 10 billion pounds in a three-year period while the farm price was rising from $3.86 per hundredweight to $4.10 per hundredweight. Apparently, the change in producer returns per hundredweight from $4.68 down to $3.86 and then back up to $4.10 per hundredweight over a period of five years was not a major factor affecting the quantity of milk taken by domestic consumers during this period. Similarly milk production increased steadily from 114.7 billion pounds in 1952 to 122 billion pounds in 1954, while the average return to producers declined from $4.68 per hundredweight to $3.86, and continued increasing to 126.4 billion pounds in 1957 while the average return to producers went up to $4.10 per hundredweight.

Thus, the influence of unit returns on production was exceedingly slow and even contrary to expectation, at times, while the up-swing in the production cycle ran its course from 1952 to 1957.

The proposed "self-help program" contemplated no change whatever in the actual method of supporting producer prices at whatever level was determined. Therefore, it is apparent that any increase in the support level, whether it be from 75 percent of parity to 80 percent or to 90 percent would have the same effect on farm income, quantities of surplus taken by the government, and cost of the program as would have occurred if the level had been raised under the present program. Hence, the only difference in farm income or cost of the program between the proposed method and the current method would be associated with the "self-help" aspects of surplus disposal.

Since the proposed legislation would have required a deduction of 25 cents per cwt. from total milk sales in the United States, it is clear that if the support level were established at 90 percent of parity and made effective at that level, farmers would automatically receive only about 84 percent of parity for their product. The situation would be identical at any other level of support which might have been established. It is also evident that the proposed legislation contemplated limited the self-help aspect to approximately

25 cents per cwt. If the total cost exceeded 25 cents per cwt. during the first year of the program the additional amount would have come from Commodity Credit funds and controlled production should be implemented during the second year, or any subsequent year, if the anticipated cost was to exceed 25 cents per cwt. for all milk sold.

The quota system proposed was to discourage "over-quota" production by means of penalty assessments for all over-quota milk. The purpose of this control was not to increase producer returns by restricting supply to the point that market prices would be enhanced, but rather to limit the quantity of surplus which must be removed from the market by severely penalizing any increase in this quantity of surplus milk. Therefore, we need not consider the possibility of increasing producer returns by means of quotas on milk production, but only the administrative feasibility of preventing a further expansion of output beyond the desired level.

Prior experience with "closed base" quota systems has not been too encouraging as one contemplates the administrative feasibility of a nationwide quota system. Each individual producer, facing a horizontal demand curve for both his base and his excess milk plus being required to pay a severe penalty for excess marketings, will seek always to compare his average returns per unit, base milk plus excess milk, with whatever he figures his production costs are, and at the same time attempt to reduce unit costs. Therefore, since volume is often a significant factor in the determination of unit costs, the share that each farmer has in the total market becomes extremely important. Since the contemplated quota will be based upon a historical precedent, it obviously would be favorable to established producers, particularly those already operating at or near their capacity. New producers would be penalized severely and so also would producers who are seeking to expand their size of operation. If large producers, who receive large bases, are already operating at relatively high efficiency in terms of output, and if extremely small producers were exempt from this proposal, it would place a considerable burden upon all farmers who are not small enough to be exempt and not large enough to be competitively efficient with those who have already been established and have larger bases.

All of these factors have been in evidence on fluid milk markets where closed base quota systems were tried, and have contributed to the administrative difficulties encountered by the agencies whose responsibility is to make the program effective and at the same time make proper adjustments in individual bases. The difficulties inherent in this job are evidenced by the current recollections of farmers who participated in such programs concerning the extremely large bases, which in their opinion, had been granted to some of their neighbors; in the complaints which can still be recalled concerning the failure of the committee to make proper adjustments; and in the fact that most of the cooperatives which attempted to administer such programs were very happy to abandon the effort when demand conditions improved following the depression of the 1930's, and their apparent unwillingness to embark upon any such efforts since that time. The sponsors of H.R. 10043 would like to remove the administration of this proposal from the Secretary of Agriculture, but in all probability, the actual administration of the "self-help" program would not be materially different if the top policy were directed by an independent stabilization board compared to employees of the U. S. Department of Agriculture. And, in fact, it is quite probable that many of the persons currently engaged in handling dairy support price and acquisition matters would soon be employed by the stabilization board.

Conclusions

The proposed self-help program would have the same impact on production, consumption, and cost of surplus disposal as the existing program at any established level of support price. The net impact on producer income would be several hundred million dollars less each year as producers assumed the cost of surplus disposal at least to the equivalent of 25 cents per hundredweight on all milk sold per year.

It is probable that both the demand for and the supply of milk and dairy products are somewhat more elastic than was estimated by sponsors of the proposed legislation, but considerably more inelastic than the estimates of those who were in opposition to the self-help program.

The major economic issue was associated with the proposed 90 percent of parity support price and sponsors of the legislation indicated a willingness to reduce this level. If the proposal should be reintroduced in the coming Congress, at the lower level, its possibility of approval by the administration would be enhanced but, in my opinion, the possibility of producer approval would be materially reduced. It is doubtful that a majority of the milk producers of the United States will be willing to accept a substantial portion, if not all, of the cost of surplus disposal unless their income is at the same time rather considerably increased over the current support price level.

The conflict of interest between agricultural producers as individuals and as a group is equally evident among dairy farmers as it is among producers of other agricultural commodities. Hence, milk producers as a group may clearly recognize the desirability of limiting output in order to reduce the quantity of surplus in the event that a 90 percent of parity support level should be established but, at the same time, each individual farmer would make every possible effort to increase his own output up to the point that he was certain his hundredweight returns were dangerously near his cost of production. This very logical reaction of individual farmers faced with a perfectly elastic demand curve for their milk output makes the administration of a "closed base" quota system extremely difficult and unrewarding to those who are faced with the responsibility.

It is doubtful that any significant advantages would be achieved by setting up a stabilization board consisting primarily of farmers and their employees; however, if it is a Constitutionally valid delegation of authority from Congress to establish such a board, it probably would work just as effectively as the Department of Agriculture after it gained some experience.

Thus, it appears to me, that farmers have relatively little to gain from this proposal unless it results in a considerably higher level of support than could be made effective under the present program; and if the level is reduced to any considerable degree below the proposed 90 percent of parity it is quite likely that the major limitation on its usefulness would be the difficulty in getting it accepted by a referendum of producers even if the enabling legislation were passed by Congress.

CONCLUSIONS AND RECOMMENDATIONS

On self-help dairy marketing programs and marketing orders

Dairy marketing specialists are in frequent contact with members of the dairy industry who have an interest in milk marketing orders and the various self-help plans which have been seriously proposed. This session discussed these orders and plans and the role of specialists in explaining them.

Several questions were discussed in connection with Federal orders, giving an indication of the topics on which information is most needed. They included: How small or how large a market an order can or should cover, how premiums above class prices affect the orders, how prices are related to the supply and sales of milk in a market, and the relationship between State controls and Federal milk marketing orders. It was agreed that producers and handlers accept the orders better as the orders are better understood.

The principal discussion of self-help plans centered on the production control features. It was the concensus that it was more appropriate for State departments of agriculture to promote increased sales and consumption of dairy products directly and through improving quality, rather than to be involved in production controls.

RECENT RESEARCH FINDINGS ON EFFECTIVENESS OF PROMOTIONAL PROGRAMS IN EXPANDING OUTLETS FOR MILK AND DAIRY PRODUCTS

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Thank you for asking me to appear again on your annual workshop program. As you may know, I spent some little time on Bill Crow's staff helping to service the matching fund program and in that time became quite impressed with the work you are doing and its future potential.

In the past year, we in the Market Development Branch have had the opportunity to work closely with the American Dairy Association, the Milk Industry Foundation, local milk dealers, and others in testing and measuring the impact of promotional programs on sales of milk and dairy byproducts. For the most part, these efforts have been conducted on a local basis. We felt that if it were possible to clearly demonstrate in one, or at the most four or five cities that a specific promotional approach would result in a significant sales increase, organizations in other areas might follow suit, and the effort might become State, regional, or possibly national in scope. Thus, virtually all the promotional efforts to which I will shortly devote my attention were of the scope that would be manageable by State Departments of Agriculture.

Two fluid milk byproducts on which we have recently conducted research aimed at measuring the sales effect of special promotions are sour cream and cottage cheese.

The study of the market expansion possibilities of sour cream was undertaken because the consumption of this product is low nationwide, but from fragmentary data seems to be increasing. This product (18 percent fat) also offers some promise of helping to halt the decline in the use of butterfat. In addition, we understand that local dairies are quite interested in boosting sales of sour cream because it carries a relatively high markup.

The market selected for the test was Des Moines, Iowa, where consumption of cultured sour cream was found to be low compared with larger metropolitan areas. The American Dairy Association underwrote the cost of promotion and the Milk Industry Foundation helped obtain the cooperation of local dairies in providing sales data and coordinating sales efforts.

The intensive promotional campaign was launched in August 1957, by the American Dairy Association with the participation of local dairies. Newspapers, television, in-store promotional materials, and leaflets and recipe booklets were used in the campaign. Using the week ending July 27 as a base, total sales of cultured sour cream increased an average of 42 percent during August with a high point of 59 percent over the base in the third week. For the nine-week period following the promotion, an average increase of 19 percent was maintained, even though the seasonal appeal of the use of sour cream as a summer salad no longer applied and the normal Thanksgiving and Christmas holiday upturn was not yet evident.

This next transparency shows total sales of cultured sour cream during and after the promotion when compared to the same period of a year earlier. Sales for the period July-October 1957, totaled 33.1 thousand pounds, an increase of 80 percent over July-October 1956. However, you will note that the post-promotional gains (September and October) were slight compared with projected sales trend but still were about one-fifth above sales in September-October, a year earlier. As you can see, the market for this product in Des Moines is expanding, which may mean that it is catching the public fancy, and promotion can help speed this trend.

Looking at August alone, we see that sales in 1957 (10,000 pounds) were up about 130 percent over a year earlier, and even after adjustment for projected sales, the gain was about one-third.

Before we leave this chart, I would like to point out a post-promotional sales trend that has shown up in several other research efforts designed to measure short-run effects of promotional campaigns for agricultural products. You will notice the dip in sales in September-October 1957 following the promotional period. Some of this, particularly the October dip, could be ascribed to seasonal factors but of more importance is the indication that promotional efforts are oftentimes followed by contractions in the sales curve; perhaps, we borrow a bit from the immediate future. Thus, in the short run, promotion seems to stimulate sales and could be quite useful in moving temporary seasonal surpluses of specific commodities. Continuous efforts are probably needed to maximize sales, though to date we have not researched this aspect. Next year, we hope to have some answers on the intermediate and long-run effects of promotion.

The cultured sour cream study in Des Moines included an evaluation of homemakers' use of the product and their awareness of the promotional campaign. For this purpose, homemakers were interviewed in Des Moines and suburbs from October 2 through November 9, 1957. Three homemakers in five said they had noticed one or more aspects of the special promotional program in August 1957. A larger proportion of purchasers of sour cream were aware of the campaign than non-purchasers. Only a very small proportion of households reported receiving leaflets or a "sales talk" on sour cream from their routeman or noticed displays in retail food stores.

Family size and homemaker's age did not appear to influence use. Striking differences were noted in use, however, among different income and educational groups. Lower income, less educated homemakers were much less likely to buy. And about half of the homemakers who had not used sour cream gave a reason which indicated lack of knowledge on how to use the product--but only one in six thought the product was too expensive.

The sour cream study points up the possibility of expanding consumption of dairy products such as sour cream through coordinated promotional efforts. The consumer survey shows more clearly the character of the consumer market for the product and indicates ways in which promotional programs may be designed or redirected to achieve better results. A final report on this work will be available in the near future.

In the spring of 1958, a similar study with much broader coverage was conducted on cottage cheese. Cottage cheese is another product in which the consumption trend nationally is on the increase. First, some background. This transparency shows per capita consumption of cottage cheese (household only) by regions in the last quarter of 1955, next to the last period for which regional information is available. Consumption ranged from a low of about 0.2 pound per person in the south to about 1.3 pounds on the Pacific Coast. Even though the last quarter of the year tends to be at a lower level than other quarters, the relationships between regions are felt to be reasonably firm. Multiplying by four, consumption in homes on the Pacific Coast approximated more than five pounds per person for the year. Unofficial estimates place current consumption in California through all outlets at seven to eight pounds per capita.

The cottage cheese research included a study of its market potential, the use of merchandising techniques, and effects of special promotional campaigns at the local level in selected cities in two areas of the country--the Southeast, a low-consuming area, and the Midwest, a high-consuming area. The Lenten period was chosen as the promotional period. One city in each area served as a control in that no special local promotional efforts were undertaken. Local dairies in the test cities conducted most of the special promotional activities.

Findings from this study are still in the preliminary stage. However, let us look in some detail at the Atlanta, Ga., market, one of the promotional cities in the past Lenten season--February and March 1958--its market characteristics relative to cottage cheese and the influence of the promotion.

During January 1957-May 1958, about 80 percent of all cottage cheese sales were made through noninstitutional outlets--mainly stores and home delivery. But the important thing is that only five of this 80 percent was made through the home delivery outlet. This indicates a target area for further expansion of cottage cheese sales in Atlanta. Nationally, it is estimated that about 12 percent of the cottage cheese is sold on home delivery routes.

The major portion of cottage cheese was sold in 12-ounce containers in the Atlanta area. The small amounts of cottage cheese (lower right of chart) sold during the promotional period in 14 and 9½- ounce unit sizes reflect special deals in conjunction with promotional activities. One-pound packages were offered by about 60 percent of the dairies, but none offered the two-pound packages. This chart raises the question, "Could sales of cottage cheese be boosted by making one-and two-pound units readily available to consumers?" Prior research on packages for a number of products indicates that variety in package size can be a real sales stimulant.

Per capita consumption of cottage cheese in the Atlanta metropolitan area during 1957 was about 1.8 pounds. For the first five months of 1958, which embraces the promotional period, the annual per capital consumption was about two pounds, up about three percent from a year earlier. It should be pointed out, also, that this indicated rate is only slightly more than one-fourth the rate of 7.3 to 7.8 pounds found in the three Midwestern cities included in this study (Des Moines, Omaha, and South Bend).

Through the cooperation of the Georgia Agricultural Experiment Station, information was obtained from the Atlanta Consumer Panel for 17 weeks in 1957 and 1958 starting in mid-February of each year. The panel is composed of about 300 families whose characteristics are reasonably representative of the families in the Atlanta metropolitan area. Looking at this chart, which combines indications for 1957 and 1958, we see that 60 percent of the families buying cottage cheese one or more times made over $4,000 per year but only 37 percent of the families in the panel fall into this income category. On the other hand, only 12 percent of the families with incomes under $2,000 bought cottage cheese compared with 25 percent of all panel families falling into this category.

About 80 percent of the families buying cottage cheese were white. This compares with 62 percent white families in the universe.

Thus, it appears that race and income are important factors in the consumption of cottage cheese in the Atlanta market. This indicates to handlers of cottage cheese and their advertising agencies some of the possible "target areas" in their efforts to boost sales. It also presents other questions such as why these factors are important and what role consumer education could play in this matter.

The next transparency shows actual sales of cottage cheese from January 1957 through May 1958. Note the peaks in the total and noninstitutional lines coinciding with Lenten promotional campaigns in 1957 and 1958. It should be pointed out here that Lent has become a normal cottage cheese promotional period in most areas. This is the first attempt we know of to measure the marketwide effect. As you can see from the transparency, the product was promoted to some extent during the 1957 Lenten period. The peak in sales in 1958 came a little earlier in the year than in 1957. Observe the relative stability in the institutional line compared with the others.

Sales during the February-March 1958 period were about 10 percent higher than a year earlier, followed by a sharp drop in April 1958 compared to April 1957. Keep in mind, however, that in 1957 Lent ended later in April and this probably accounts in some measure for the drop. Sales in January and May were about the same each year.

These figures illustrate, as did those on sour cream, that promotional efforts in the short run can stimulate sales but that sustained efforts may be necessary to maintain this higher level to something near what is found in some of the higher consuming areas.

Let us examine some data relative to market development for fluid milk. As many of you may know, a dramatic increase has been occurring in whole milk purchases in half-gallon containers with an almost accompanying drop in sales in single quarts. This shift has been occurring in all regions, but sharp differences exist between regions in the amount of milk being purchased in multiple-quart containers. For example, buying of whole milk in half-gallons in the North Central and Mountain-Southwest areas amounted to 57 and 68 percent, respectively, of total purchases in each region during April-June 1958. Just under half of all whole milk purchases in the South were in two-quart containers as contrasted to only one-fifth in the Northeast. To attract customers to this merchandising change of multiple-quart containers, milk in larger containers is often sold at a lower unit price and, in many cases, advertising campaigns are undertaken to make consumers aware of the advantages of larger unit purchases.

Another important indication from this chart is the apparent leveling off in the trend toward larger size containers. Market restrictions, namely, the banning of multiple-quart containers, and the fact that in some areas there is little saving to the consumer in buying the larger containers have been deterring factors in this trend.

The consumption of whole milk is increasing at a faster rate per capita in the South and Mountain-Southwest regions where milk purchases have shown the greatest shift from single-quart to half-gallon containers. However, consumption rates in these two regions are below the national average.

Recent research findings on the effects of the Special School Milk Program should be of considerable interest to you. When the Special School Milk Program was placed in operation in Los Angeles in September 1955, consumption increased 68 percent in elementary schools and more than doubled in junior high and senior high schools. The size of container was increased from a half-pint to one-third quart at the time the Special Milk Program was initiated. In elementary schools, prices were reduced from six cents a half-pint (eight cents per one-third quart equivalent) to five cents for one-third quart. Price reductions in secondary schools were even sharper, percentagewise, than in elementary schools.

In St. Louis schools, the School Milk Program was also effective. Average daily milk consumption per pupil in elementary schools rose 50 percent under the program and doubled in high schools. As in Los Angeles, an important factor in the increased level of consumption was the sharp drop in price. For example, prices per one-half pint of milk in St. Louis elementary school cafeterias under the program were three cents compared with seven and one-half cents a half pint before the program was initiated.

In general, increases in consumption were largest among children attending schools in districts with low incomes. In both studies it was found that increased frequency of milk service influenced consumption favorably.

A study recently completed in Berkeley County, West Virginia, (cooperatively with West Virginia University) showed that over half of the sales through milk vending machines were "plus" sales, indicating that the introduction of such machines can expand the total market for milk and not merely cause a shift from other methods of sale. In this research, we were fortunate in having a market in which there were no machines prior to the study. With the cooperation of vending machine companies and the American Dairy Association, we were able to install machines at various locations and measure the effect on per capita consumption on a marketwide basis. Of employees having access to the milk vending machines, 63 percent bought milk from the machines during working hours; but previous to installation of the machines, only 19 percent had brought milk in from the outside to drink during working hours.

Although milk vending does offer possibilities in expanding milk markets, certain cautions are in order. Location, type of work, and other factors can have wide effects on sales of milk through vending machines. Also, the research indicated that if machines do not break even in the first few months of operation they are not apt to later.

A study was just completed in Chicago to measure the impact of the introduction of improved nonfat dry milk on household consumption of fluid and evaporated milk. As you know, this has important implications since producers receive higher returns from fluid than manufactured milk. The analysis patterns show that nonfat dry milk is not substituted to any appreciable degree for the fresh or evaporated product and thus expands the total consumption of dairy products.

We are also preparing for publication a study, conducted in Chicago, analyzing the effectiveness of one-cent sales, coupons, two-for-one offers, and other "special deals" on urban household purchases of butter and margarine, shortening, salad and cooking oils. The study was undertaken to provide some answers in a number of areas including: (1) Extent of consumer participation in deals; (2) influence of deals in inducing first purchases; (3) interproduct substitutes as a result of deals; and (4) the role of deals in stimulating larger total consumption of food fats and oils.

Some of the preliminary findings indicate a virtual nonexistence of consumer deals in the purchase of butter; a relatively small number of heavy-dealing families accounted for disproportionately large shares of all reported deals and perhaps the primary role of consumer "deals" for food fats and oils is simply to stimulate interest in a new brand or help to persuade housewives to repurchase a product or a brand not purchased for many months.

I have presented briefly some recent research findings on dairy products. Some of the areas of research we are planning to attack in the near future are longer run evaluations of the effectiveness of advertising and promotion, further work to assess the net effects of increased school milk consumption, investigation of the impact of ice milk and soft frozen dairy desserts on total consumption, the types of merchandising materials most useful to route deliverymen in moving increased quantities of fluid milk, cottage cheese, sour cream, and other products, and market development possibilities of low-fat fluid dairy products.

HOW TO IMPROVE DAIRY PRODUCTS PROMOTION PROGRAMS

Shelby A. Robert, Jr.
American Dairy Association

Mr. Robert's presentation consisted of a film and his commentary about the salient points depicted. These points were:

Our research on fluid milk indicates that our basic targets are those markets for beverage use, selling to adults, and improving social acceptance. There are a number of serious problems in the expansion and selling of fluid milk--social acceptance, availability (physical and psychological), heavy competitive sales advertising, and unwarranted nutrition concepts.

The American Dairy Association fluid milk program has designed its targets to reach the adult market and to improve social acceptance. Beverage uses are promoted exclusively.

The same general approach is taken in the development of an advertising, merchandising, and public relations program for each product. Research defines the targets and objectives and interprets these objectives into an operating marketing program.

CONCLUSIONS AND RECOMMENDATIONS

On how to increase the use of milk and dairy products in your State

Abundant promotional materials and plans of action based on long experience and timely, well-chosen research studies are available for use by State department of agriculture workers. Depending on the objectives of each State program, materials can be chosen from among several sources. American Dairy Association and national and local dairy councils provide materials for industry-wide efforts. Programs of national and State trade associations, universities and private groups also have had a place in promotional programs which were discussed by this group. State department of agriculture workers can use these resources in working with sales managers, route supervisors, and driver-salesmen of dairy companies, and corresponding officials of retail store organizations.

Following are some of the activities, discussed by the group, which marketing specialists can participate in:

Promotion of special milk programs in schools.

Support of promotions featured in Dairy Farmers' Almanac by American Dairy Association.

The use of National Dairy Council teaching aids to make milk break times a teaching tool.

Driver training to make home delivery the effective selling tool it can and should be.

Encouraging eating establishments to feature milk and dairy products more effectively in their food service.

Surveys and other assistance in getting wider use of milk vending machines and dispensers in homes, factories, schools and other such places.

Applying the results of market tests in which concentrated promotional programs were carried out on selected products.

OPPORTUNITIES FOR REDUCING MILK HANDLING AND PROCESSING COSTS

Charles E. French
Purdue University

This will be essentially a broad survey of suggested opportunities. No attempt will be made to confine the survey to opportunities dependent upon research already available or underway. Yet, it will not be mere dreaming of what might be opportunities. Service workers can act now to capitalize upon most of these opportunities either through existing research or through answers which should be forthcoming in a progressive service program.

This survey will be couched in terms of the operating statement breakdown of plant costs. I will emphasize fluid operations but most of what I say is equally applicable to fluid or manufacturing operations. As orientation, I would like to draw on a breakdown of costs reported by a rather large group of above-average independent plants of varying size scattered throughout most of the United States (table 1).

My remarks will be directed at opportunities for cost reduction in the major cost areas. This does not imply that there are not important savings in many of the minor cost areas; however, other things being equal, economic prudence says work where the greatest opportunities lie.

Sales income is not a cost area, but one comment seems in order here. Plants should probably expect the unit sales return in fluid milk to decline relatively to many other commodity and cost unit values. Fluid milk will probably reduce service value relative to product value--a trend opposite that in food industries in general. This is based on the high relative service costs on milk traditionally and the trends in recent years away from some of these services. However, manufactured dairy products will probably continue to add services relative to product, and a relative unit return reduction is not expected here.

Milk and Other Ingredients

Milk is the main outlay item (currently about one-half of the sales dollar) in dairy plant operation - a fact so easily overlooked. Other ingredients are actually almost insignificant costwise relative to milk. Other ingredient costs will increase relatively, however, and a manager must keep his eye on them. Some cost reduction is possible in minor ingredient selection and control with good methods which eliminate loss, control optimum quantities, and provide for substitution of lower cost sources where they are available.

The leverage for savings in milk loss in a plant is almost unbelievable. The average milk loss in a good fluid operation is probably slightly under 2 percent. Federal orders generally put losses of more than 2 percent in Class I utilization to protect farmers against poor plant procedures. However, the range in fat loss percentages among plants is extremely wide, and it is not unusual for such losses to exceed 5 percent for extended periods of time. (Chart 1, fig.13)

Table 1.--Costs and margins for selected dairy firms: Per 100 pounds of milk and cream processed, for selected periods

Account	1953	1955	1957	1958 January-March	1958 April-June
	Dol.	Dol.	Dol.	Dol.	Dol.
Net sales	11.12	10.95	11.15	11.01	10.96
Cost of raw materials:					
Raw milk and cream	5.43	5.12	5.14	5.22	4.81
Other	.90	.94	.87	.82	.97
Total	6.33	6.05	6.01	6.04	5.78
Gross margin	4.79	4.91	5.14	4.97	5.18
Operating Cost:					
Salaries, wages, and commissions 1/	2.19	2.28	2.50	2.51	2.56
Containers	.62	.70	.71	.70	.70
Operating supplies	.32	.32	.29	.30	.29
Repairs, rent, and depreciation	.52	.60	.67	.66	.67
Taxes	.06	.06	.06	.06	.06
Insurance	.02	.04	.04	.04	.05
Services	.19	.18	.17	.15	.17
Advertising	.15	.18	.18	.17	.19
General	.13	.14	.15	.15	.15
Total	4.20	4.50	4.77	4.73	4.84
Net margin 2/	.59	.40	.37	.24	.34
Firms reporting	51	83	80	80	80

1/ Includes State unemployment, Federal old age, workmen's compensation, and employee benefits.

2/ Net returns to owners before income taxes.

Source: U. S. Department of Agriculture.

illustrates the annual volume increases necessary to offset increases in fat loss with reasonable profit percentages and fat costs.)

Factors which affect fat loss make an imposing list. A few of these include: (1) Bad sampling, (2) inaccurate weights, (3) poor standardization, (4) general leakage and spillage, (5) bottle breakage and leaks, (6) overfilling, (7) poor salvage on returns, (8) theft and pilferage, (9) evaporation, (10) poor control of donations, and (11) product spoilage.

Salaries, Wages, and Commissions

The next most important outlay item after milk is labor (currently about one-fourth of the sales dollar or one-half of the gross margin). This is a broad category and we do not have good breakdowns of this by labor types, but we can probably expect about one nickel of each sales dollar to go for administration costs. Also, the selling and delivery labor costs are much more than the plant labor costs. One helpful comparison here is the fact that the plants above may be expected to have total plant expenses of about 17 cents of each sales dollar and selling and delivery expenses of about 23 cents. Selling and delivery expenses are made up of a much higher proportion of labor than are plant expenses.

However, plant labor savings are important. Starting in the receiving operations, probably the major considerations today involve handling dual intakes. Especially in small plants, 100 percent bulk receiving will reduce receiving costs substantially. One study at Minnesota placed reasonable savings for a 40,000 pounds-per-day plant at 22 cents per hundredweight, a 75,000-pounds plant at 11 cents and a 160,000-pounds plant at 7 cents. Our studies would suggest that these may be quite realistic as an average and some plants can expect much higher savings than these.

Many plants cannot convert 100 percent to bulk, however, and must live for some time with dual facilities. Our studies suggest that a plant receiving 75,000 pounds or less should consider only one man in the receiving room. Two men with assistance for cleanup should be able to handle up to 225,000 pounds. Three- and four-man crews in receiving rooms are generally inefficient. When a volume is only slightly above a crew breakover point, attempts should be made to schedule these men for additional work, often in bulk milk receiving.

Processing is moving toward automation. Possibilities do exist for labor efficiencies with present equipment. For example, bottling crews in progressive plants have been essentially cut in half in recent years by rearrangement of bottling machines and use of accumulating tables. Well placed conveyors and proper location of switches, small tools, and dials allow meaningful savings. However, plant processes suggest large-scale automation. Cleaning has been automatized in some plants. Generally, continuous processing gives us many advantages over batch processing. However, the need is for a thorough evaluation of the automation potential.

The opportunities for cost reduction will depend somewhat upon the attitude of labor unions. More important, however, will be the attitude of people working for cost reduction in processing plants themselves. Food industries were among the last to industrialize. Food processes were simple and did not need industrialization, but the industrial machinery industries had more lucrative markets elsewhere. I fear that food will again be the last to automatize unless the industry solves a few technical problems and presents a lucrative market for the automatic control industry to exploit.

Another big area of plant labor use lies in the storage and loadout departments. Cramped storage areas have been a big problem. Our work shows that stacking cases one to six high takes a fairly constant labor input per case. However, if we go, say 10 high rather than six high, our labor requirements go up 21 percent in order to get 66 percent more cases stored. Such information is useful in evaluating new storage areas and refrigerated delivery trucks.

Another problem in this area has been in speed-up of loadout. Recently, 6 out of 21 of our plants with more than 30,000 pounds daily intake were found to use dolly loadout. These systems have been put in for speed and on the surface, the systems look fairly efficient. However, the pre-assembly time necessary to prepare the dolly loads reduces the efficiency of these operations much below the conveyor systems. Cost reduction seems possible here now, especially since we have refrigerated trucks.

Savings in plant labor add up. Feasible labor savings in this area appear to be much better bets to increase profits than do sales increases in most cases (chart 2, fig. 3).

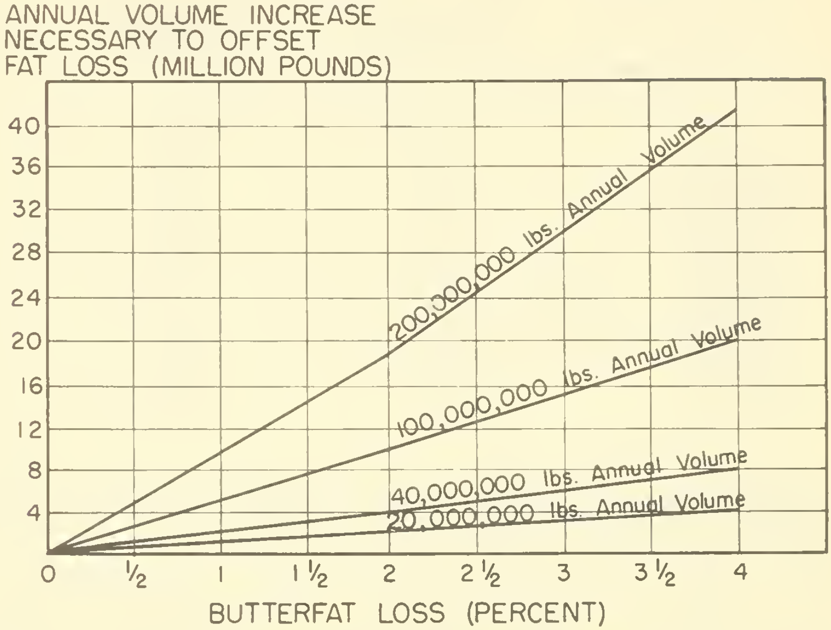
Basic trends toward fewer services in milk delivery are probably the major factors influencing cost reduction in this area. The largest single savings was the shift to alternate day delivery and this was fostered in large part by government decree. The trend will be toward even fewer deliveries and probably the shift here is much too slow for maximum cost reduction.

Another basic trend affecting delivery costs is the trend toward store sales. Undoubtedly, this trend will continue further, but there are good individual plant reasons to hold house-to-house delivery. These customers are much "safer" customers.

Unit load handling and basic institutional changes, such as the shift toward vendor operators, are big factors affecting costs in this area. Selling and delivery are big areas and probably the ones begging most for penetrating analysis on cost reduction.

Opportunities for reducing labor costs in administration involve two areas - the time of the manager himself and the time of those responsible for keeping records and preparing reports. Actually, we know relatively little about the level of efficiency here. However, it may be quite low. Currently, we have a cooperative project with the Transportation and Facilities Branch, AMS, to secure this information.

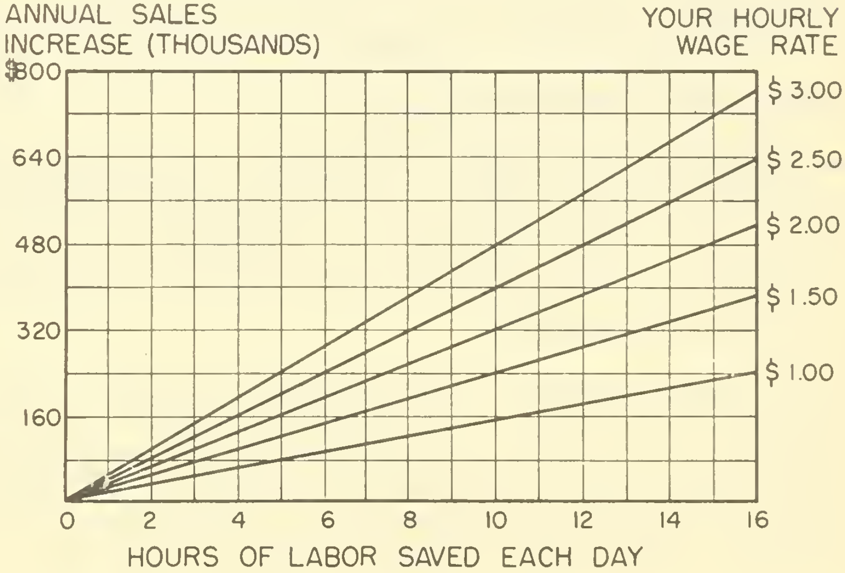
Chart 1: Sales Increases vs. Butterfat Loss Reduction as a Means of Increasing Net Profits in a Milk Plant



How to Use:
Locate your fat loss on the bottom of the chart. Look directly above to the diagonal line approximating your annual volume. Then by looking across to the left side of the chart, you find the annual volume increase necessary to offset such a fat loss. (Based on data from records of Edward B. McClain Co., Memphis, Tenn.)

Source: "Butterfat is Money," Charles E. French The Milk Dealer, January 1957.

Chart 2: Sales Increases vs. Labor Savings As a Means of Increasing Net Profit in a Fluid Milk Plant



How to Use:
Find labor saved per day on bottom of chart. Look directly above the diagonal line representing your wage scale. Then by looking across to the left of the chart you will find the sales increase necessary to give a comparable increase in net profits. Note: Net profit per dollar of sales equal 2.28 cents.

Source: "Plant Savings in the Profit Picture," Charles E. French, American Milk Review, June 1956.

Figure 13

We know that management time is valuable, If a manager works 244, eight-hour days annually, this schedule shows how valuable his time really is:

Annual salary	Every hour is worth	Every minute is worth	An hour saved each day would amount to this over the year
$ 5,000	$ 2.56	$ 0.04	$ 625
7,500	3.84	.06	937
8,500	4.35	.07	1,061
10,000	5.12	.09	1,249
12,000	6.15	.10	1,501
14,000	7.17	.12	1,749
16,000	8.20	.14	2,001
20,000	10.25	.17	2,501
25,000	12.81	.21	3,126
50,000	25.61	.43	6,249

Management today must delegate. This is not easy; it means decentralization and a manager must condition himself to certain things. He must condition himself especially to accept the ideas and mistakes of others. He must set up a channel to assure controls. This means policies and job specifications must be defined. Goals must be set. Ideas must flow both up and down. Good records and reports are the lubricant of business management Great cost opportunities probably exist here.

Management today is tending toward a science and this calls for scientific tools. We have been highly encouraged by our use of some of the so-called "modern management" tools such as electric brains, mathematical programming, and operations research. These tools do not replace management, but they can aid management and in the process increase efficiency many fold.

Repairs, Rent, and Depreciation

Many are quite concerned about the costs of repairs, rent, and depreciation. These items account for about 67 cents per hundredweight currently. To put them in this perspective tends to deemphasize them in relation to labor and milk costs. Most of these costs go into machinery and other capital items used to save labor. Thus, it may well be that these items should climb much higher than they are currently.

Capital item purchases in processing plants have often been subjected to a very short pay-back period. With present tax laws and current capital budgeting procedures, such short pay-back periods are probably not realistic. Most of these outlays should probably be evaluated on an annual use cost of about 15 percent of the initial investment. On this basis, a small labor savings can justify a large capital outlay (chart 3, fig. 14).

Containers

Containers account for an important part of the price of milk (currently about 70 cents per hundredweight). Moreover, container costs have advanced substantially in recent years. Big arguments rage about the cost-reducing possibilities of a product line of paper and glass as against one which is 100 percent paper. Generally these arguments tend to resolve themselves eventually around the cost control on use of containers, especially as reflected in glass bottle trippage (chart 4, fig. 14).

Trippage can vary widely by products and by plants. It should be known within reason for each product in a plant. Rate of returned product can increase paper package cost considerably. The basic cost-reducing steps on containers generally hinge on knowledge of costs and control procedures used. Deposits on glass bottles have often been dropped to compete more favorably with paper. Thus, the most effective means of obtaining high trippage has been lost. In many cases trippage today is extremely low.

It is not unusual for trippage to drop below 10. Costs for glass skyrocket in this area. For example, the annual glass bill for a plant with 50,000,000 pounds volume in glass would approach a quarter of a million dollars if its trippage dropped below 10.

Summary

Cost reduction opportunities exist. In fact, they are legion. Most of them are found in rather simple relationships. Often these individual savings are each small, but the total is impressive. Cost reduction is a continuous process in a plant. However, the widest sweep in cost reduction can often be made by an outsider who is not "so close to the problem."

Any basic evaluation of costs puts high priority on labor reduction. Labor is a large cost and use of labor is often quite unscientific. The range in labor used among plants is wide. Table 2 shows the approximate labor force for various plant sizes in Indiana. Also, it shows the range for the number of employees in different departments in different plants. This table should prompt some speculation on the tremendous cost savings possible in this area alone.

Chart 3: Labor Savings vs. Initial Investment

How To Use:
Find your time savings on the bottom of the chart, look directly above this to the diagonal line labeled with your hourly wage rate; then by looking directly across to the left of the chart you will find how much you can spend for labor-saving equipment and yet break even.

Source: "Will Labor Saving Methods Pay?" Charles E. French, Economic and Marketing Information for Indiana Farmers, January 1957

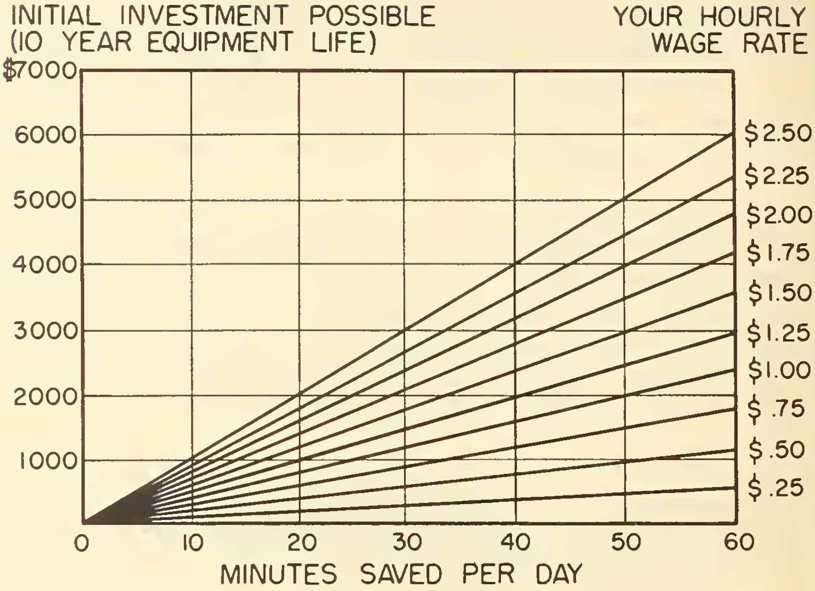


Chart 4: Bottle Trippage and Plant Savings in a Fluid Milk Plant

Source: "What's Your Bottle Trippage?" Charles E. French, Cordially Yours, August 1957.

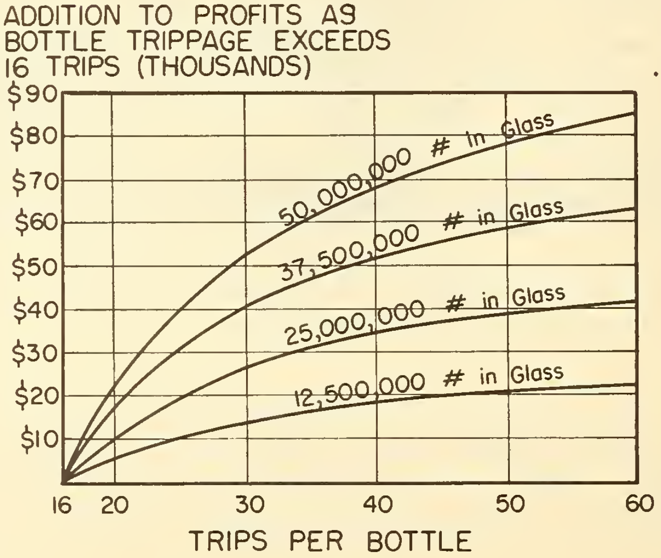


Figure 14

Table 2.--Number of people employed in 107 fluid milk plants in Indiana 1957 by departments

Type of employees	Daily plant volume												
	Over 100,000 lbs.		50,000 to 99,999 lbs.		20,000 to 49,999 lbs.		10,000 to 19,999 lbs.		5,000 to 9,999 lbs.		Less than 5,000 lbs.		Average of all plants
	No. of employees												
	Av.	Range	Av.	Range	Av.	Range	Av.	Range	Av.	Range	Av.	Range	
Administrative & clerical	24	5-42	12	6-22	77	2-17	3	1-6	2	1-4	1	0-2	6
Plant	69	30-106	31	10-70	19	6-48	9	4-33	4	1-10	3	1-5	16
Distribution	131	63-195	37	14-79	30	3-74	11	3-26	6	2-15	3	1-6	23
Total	224	98-343	80	30-176	56	11-139	23	8-65	12	4-29	6	2-13	45

Source: Dairy Marketing Information, Purdue University, January 1958.

PLANT CONSOLIDATIONS AND MERGERS AS A MEANS OF ATTAINING GREATER OPERATING EFFICIENCY

Truman F. Graf
University of Wisconsin

The fact that many milk plants do not operate at their potential capacity, and in some cases at optimum size, is well established by countless research studies. A large portion of the costs for dairy plants are relatively fixed over wide volume ranges. Hence, additional volume can normally be handled at relatively little increase in total cost, particularly when excess capacity exists as it does in so many dairy plants today.

In this paper I will argue that dairy plant processing and marketing costs could be reduced with an increase in the volume handled per plant. An increase in plant volume is, of course, most readily accomplished through plant consolidations and mergers.

Let's look at specific dairy products and pin point the effect of increased plant volume on plant costs.

Fluid Milk Plants

The importance of volume per plant on unit costs is demonstrated in Northeast Dairy Marketing Research Regional Publication No. 16 entitled, "Specialization and Cost for a Milk Pasteurizing and Bottling Plant." This report indicates that a milk pasteurizing and bottling plant with a daily capacity of approximately 15,000 quarts would have an average plant cost per package for all products of 1.18 cents at full normal utilization. However, when only 6,840 quarts per day were processed, the cost per package came to 2.06 cents. This represented a 74 percent increase in the cost per package.

The same bulletin reports that a plant of this size could separate and process 400 quarts of light cream at a cost of 2.2 cents per quart. However, when only 100 quarts of light cream were processed the cost jumped to 8.6 cents per quart. This is an increase of almost 400 percent.

Other studies report a similar relationship between volume and unit cost. For example, a USDA report by Robert E. Olson entitled, "An Analysis of Operating Costs of Selected Milk Dealers," indicates that the output per man-hour of plant labor in fluid milk and cream plants normally increases at the rate of about 21 pounds per man-hour for each increase of 10,990 pounds per day. For the individual firm producing at less than capacity then, increased sales will reduce the cost per unit.

It is important, however, to distinguish between the advantages costwise of increasing the volume of the plant which is operating at less than capacity, and in larger plants. The advantages of larger scale fluid milk plants are less certain than the desirability of operating plants at capacity. This is because the size of the plant is limited by the size of the market and the number and size of competitors.

Nevertheless, the problem of excess capacity in fluid milk distributing plants does exist. Therefore, considerable opportunity exists for reducing operating costs and increasing operational efficiency by increasing the volume per plant. Mergers and consolidations help accomplish this objective.

The same cost-volume relationship applies to milk delivery costs both at retail and wholesale. For example, California Agricultural Experiment Station Bulletin No. 757 reports on a survey in the Los Angeles market. This study revealed that the high cost firm spent nearly four times as much per quart in getting the milk from the plant to the customer as did the low cost firm. Customers of the high cost firm average about 60 units per delivery, while those of the low cost firm average nearly 2,400 units.

A further illustration of this variation in distribution costs can be obtained from the 1950-51 Report of the New York State Temporary Commission on Agriculture. This report indicates that the distribution cost to the one-quart home delivery customer often exceeds the distribution cost to the four-quart customer by 10 cents or more per quart.

It is important to emphasize that deliveries per stop is more a function of competition among various plants for outlets than it is of capacity utilized or size of plant. Vigorous competition among the small dealers for wholesale and retail outlets has meant that in many cases the deliveries per stop are small and hence the cost per delivery is high. Mergers and consolidations of fluid milk distributing plants would reduce much wasteful duplication and overlapping of delivery routes, as well as increase the volume per stop. This could increase considerably the operating efficiency.

Cheddar Cheese

Total unit costs of manufacturing cheddar cheese also tend to decrease with increased volume per plant. Research reported on in Oregon Station Bulletin 529 entitled "Economics of Cheese Manufacturing in Tillamook County, Oregon," indicates that average total cost per pound varied from 3.54 cents in the largest factory studied to 4.67 cents per pound in the smallest factory studied.

The smallest factory produced in the neighborhood of 500 pounds of cheese per day and the largest in the neighborhood of 5,000 pounds. The decrease in the average net costs were fairly continuous from largest to smallest factory in the 16 factory sample.

Also, most of the cost items followed the same pattern. Thus costs per pound for labor, supplies, plant repairs, insurance, depreciation, and taxes all tended to decrease with increases in size of plants.

Research reported on in USDA Technical Bulletin 936 also suggests that cheese manufacturing costs decrease with an increase in volume. This study indicated that a plant making 1,000 pounds of cheese per day had a make cost of about 5 percent more per pound than a factory producing 3,500 pounds a day.

Although the influence of volume on cost is not as great in cheese factories as in other dairy plants, economies of scale do exist. Consolidations and mergers can help increase both the size of plant as well as the percent of capacity utilized, and thus reduce the manufacturing cost per unit.

Swiss Cheese

Research indicates that the manufacturing costs are higher for large than for small plants. An analysis of 34 cheese factories in southwestern Wisconsin indicated that the five smallest plants had average total costs of 5.6 cents per pound while the five largest had average total costs of 8.24 cents per pound. This study also showed that an increase in plant size of 100,000 pounds of cheese per year was accompanied by a cost increase of about 0.6 cent per pound.

Does this mean that large Swiss cheese processing plants have lower operating efficiency than small plants, and hence that consolidations and mergers would be uneconomical? On the contrary, increasing cost with increasing volume reflects certain inefficiencies of the Swiss cheese manufacturing process as it is carried out in Wisconsin. Consolidations and mergers could alter this process and hence reverse the tendency for increased costs with increased volume.

Under the present technology where cheese is made in kettles, the need for labor increases as rapidly, if not more so than the volume of production does, because each kettle must be watched and supervised closely. Doubling the volume will ordinarily more than double the number of workers. Furthermore, the labor requirements for the dipping, pressing, and curing processes also increase with volume. The individual attention which must be given each wheel all through the factory operation mitigates against substantial labor savings as the plant size increases.

On the other hand, large scale Swiss cheese manufacturers in other States have discarded the kettle and wheel technology and make block type rindless Swiss cheese in vats. The cheese is made in a vat, and instead of being dipped and placed in a press, it is piped to a universal cheesemaker or molding vat where the whey is allowed to drain off under pressure. One man can operate the vat and the molding vat. It takes at least two men to operate five kettles (same amount of milk as one vat). Although the initial costs on this process will be larger, increases in volume of cheese manufactured are not accompanied by equal increases in costs. Thus under the new technology unit costs will decrease as the size of plant increases. Hence mergers or consolidations accompanied by a change to the new technology can result in substantial decreases in unit costs.

Furthermore, the Swiss factories now pay 14 percent of the gross receipts to the cheesemaker for his making operation. This has the effect of maintaining the average total unit cost at relatively high levels. Thus the higher the volume the higher the make cost. Consolidations accompanied by discarding of this antiquated payment method can also help improve operational efficiency.

Dried Milk Powder

University of Minnesota Station Bulletin 435 entitled, "Costs of Drying Milk in Specialized Drying Plants," indicates that cost reduction through increased volume occurs in dried milk plants up to volume of about 6 million pounds of powder per year. This is the equivalent of around 200,000 pounds of whole milk per day. This bulletin suggests that beyond this output, cost reduction resulting from spreading fixed cost is slight and other methods of increasing efficiency are needed to achieve further cost reduction. However, the bulletin also reports that cost savings can be realized in plants with greater volumes than this if they are "basically" larger plants and have optimum capacity considerably greater than the "typical plants covered in the survey."

Powder plants appear to operate on the decreasing phase of the average cost curve over larger volumes than cheese plants do. This probably accounts for the substantial increase in size of powder plants as contrasted to cheese plants in recent years. In Wisconsin, at least, powder and butter production have increased considerably more than cheese production since the inception of the price support program. Consolidations and mergers which take advantage of these increasing efficiencies at larger volume plants, result in increased operational efficiency.

Creameries

Further research at the University of Minnesota, and reported on in Station Bulletin 442, indicates that the largest volume creameries had the lowest unit costs. Plants with over 600,000 pounds of butterfat a year had processing costs of 6.11 cents per pound of butterfat as contrasted to 9.76 cents per pound for plants with less than 300,000 pounds of butterfat.

Research reported in Iowa Agricultural Experiment Station Report No. 17 entitled, "Manufacturing Costs: Whole Milk Creameries," suggests the same relationship. This report concludes that the largest plant can produce four times as much butter as the smallest while paying only 2.4 times as much for the processing operations. Butter manufacturing costs were 9.42 cents per pound with an annual volume of less than 1 million pounds, and only 5.21 cents per pound at 2.2 million pounds.

In areas where there are a large number of plants each operating below capacity, large cost savings can be made with the consolidation of some of the creameries into larger volume plants of more economical size. The potential cost savings from reorganizing creameries in an area to fewer and larger plants may be considerably greater than the potential in-plant cost savings.

Credit

Few dairy plants know what it is costing them to extend credit to their patrons. A recent research study by the Farmer Cooperative Service entitled, "Credit Control in Selected Farm Supply Co-ops," gives some insight into this question. This study showed that it cost $2.45 for the associations to extend $100 worth of credit in 1956. Also while sales increased 31 percent over the five-year period from 1951-56, accounts receivable increased 71 percent. While this study was made on supply co-ops it would appear relevant to dairy plants as well.

The costs of extending credit by plants to its patrons are high, and a good way for plants to reduce costs and hence increase operational efficiency would be the establishment of firm credit controls and policies.

You may wonder where the issue of consolidations and mergers enters into this particular question. The point is that the smaller dairy plants often find themselves more or less at the mercy of their patron members insofar as instituting quality checks and taking other practical policy stands. In other words, because of the limited volume and the fear of losing volume, and thus further disadvantaging their operating position, many of the smaller plants are reluctant to force through needed business decisions. Many extend free credit in form of advances on checks or financing equipment, milk cans, cleaning powder, and the like. This cost is reflected back to the plant in the form of higher total average costs. Consolidations and mergers could put plants in a sounder operating position, with a larger volume and lower net costs, and plants could then adopt a more realistic patron credit policy. This could cut plant costs and increase operating efficiency.

Procurement Policies

The location of many of our dairy plant facilities were decided on in the "horse and buggy" days. Viewing these plant locations in terms of our present transportation facilities, means that considerable procurement inefficiencies exist. In many cases location seriously handicaps plants in meeting competition. Transportation has become such an important cost factor that it alone can spell the difference between success and failure for a dairy plant. Plants are frequently paying considerably more for transportation than they should be paying and more than they would be paying if their plants had been properly located with reference to the present day situation. Dairy plants just cannot afford to pay a transportation penalty on everything they handle and expect to keep their costs in line.

Consolidations and mergers could permit closing some of the more inefficient, poorly located plants, warehouses, and distribution points and replacing them with better facilities. Or the inefficiently located ones could be merged with those which were located more advantageously transportationwise. A word of warning here. It is important to obtain complete information on the potential market for the products before the site location is settled on. A plant must do the most efficient job of covering the territory it intends to serve, and must be able to step out after new business instead of let the business come to it. Also it must consider the expansion possibilities of the territory involved. Plant location and its impact on procurement and distribution costs is a most important area insofar as reducing costs is concerned. Intelligently conceived consolidations and mergers can be very important in reducing transportation costs and increasing operational efficiency.

Premiums

Many of our dairy plants just do not have large enough volume, or a reputation for a high enough quality to command premiums on their products. Thus, although premiums are offered on large volume high quality shipments, many dairy plants are unable to take advantage of them.

The same principle applies to government price support sales. These must be in carload lots and most of our cheese factories aren't able to accumulate this large a volume of cheese. Hence they are selling to assemblers who in turn assemble the carload lots. The factory, however, takes in the neighborhood of $1\frac{1}{2}$ cents a pound below the support price for cheese. In other words, because the factory is unable to assemble the cheese in carload lots it must sell to an assembler who performs this function and the factory receives a correspondingly lower price. Of course, there are assembling and grading costs, but nevertheless larger factories find it profitable to sell directly to USDA, rather than through assemblers as small factories must do.

Consolidations and mergers could often help increase returns by enabling plants to take discounts, and receive premiums.

Large Scale Retailers

Chain stores are controlling a larger and larger proportion of the retail food sales. For example, in 1945 chain store sales were 45 percent of independent store sales, whereas in 1955 they were about 60 percent. These chain store sales are also becoming more and more concentrated among the largest concerns, as witnessed by the fact that in 1955 the eight largest retail chains accounted for 21 percent of the food store sales in the country. Additional large organizations are continuously emerging as the result of mergers among the medium and small retail stores.

The independents too are attempting to increase their competitive advantage in buying, by organizing cooperative purchasing associations. Around two-thirds of the independents are now members of retailer-owned wholesaler associations or voluntary buying groups. This is an attempt to obtain the advantages of concentrated buying power enjoyed by the larger chains.

The emergence of the large scale retailer organizations has been of considerable economic value to society. The resulting modern mass low cost merchandising has cut marketing costs. On the other hand, this movement toward large scale retailing represents a considerable increase in the actual or potential market power of the buyers. The sheer volume of their purchases gives them a strategic weapon in bargaining with dairy suppliers. Thus dairy plants find that they are not only competing with larger and more powerful rivals on the processing side but are also being paired against larger more powerful buyers on the retail side. Even if they do not sell directly to retailers, the impact of this concentration at the retail level will eventually be felt by the plant in its sales program.

Dairy plants are going to have to adjust to the growth of large scale retail chains. They are going to have to become larger if they wish to sell to the chains. Chains prefer not to deal with small suppliers. Even if plants succeed in selling to the chains they will have to get larger to prevent becoming a captive supplier of the chains. Unless the dairy plant is large enough so that it isn't dependent on any one buyer it will be put in the compromising position of having to more or less accept whatever the particular chain store buyer offers it. If it refuses it will lose the outlet--more often than not its only one. This it can't afford to do, so it takes what it is offered and puts itself in a weak position in the process. The growth of the large retailer chain means that the dairy plants are going to have to grow, first in order to sell to the chain, and second in order to bargain with them. If the plant is not large enough to sell to several chains their bargaining positions will be weak.

Chains or independent buying associations exert major control in the retail market and a small dairy plant is at a serious disadvantage in selling to these large buyers. Mergers can help plants grow to the desired scale and thereby maintain an effective competitive bargaining position with these powerful buyers. The alternative will be lower selling prices, and hence a less favorable operating position.

Dairy Sales Agencies

Consolidating and merging to form central sales agencies is needed to enable dairy plants to compete on the highly centralized retail market. In addition, the central sales agency would have some real economic advantages insofar as sales programs are concerned. These would include: (a) the opportunity to channel products directly to the handlers when markets needed supplies and when an economic advantage existed. Thus duplication of selling efforts could be eliminated. This would save considerable expense and also reduce the price depressing effect of too many sellers on the market; (b) Long term and full supply contracts could both be more easily negotiated; (c) there would be improved and uniform quality among member plants; (d) a storage program could be carried out so as to keep high quality products available for the markets at all times; (e) national or at least regional brand names could be developed and promoted; and (f) it would act to neutralize the superior bargaining power of large buyers.

The formation of dairy sales agencies through consolidations could help many of our smaller plants compete. The larger dealers are able to go into the distant markets and employ whatever device is necessary to get the business. They have more capital, can afford larger discounts, and are more diversified in products as well as location. They can also afford more specialized management and have certain advantages in efficiency and market power. All of these reflect back to the plant in terms of its operational efficiency.

Operational Advantages of Large-Scale Flexible Type Firms

Multiple product flexible type plants growing out of mergers and consolidations have several other important advantages over the small scale dairy plants. Some of these are:

(a) Because price relationships between dairy products frequently change, there are also shifts in the relative profitability of producing different types of dairy products. A large-scale multiple product type plant can shift from one product to another to take advantage of these shifts in profitability.

(b) Economies of scale occur. The minimum labor force, and equipment required to handle a given volume of production can often handle a larger volume without additional labor or equipment. Hence the costs per unit of product decreases as the volume increases. Furthermore, plant managers report that it costs about as much to clean up a plant as to operate it all day. The clean up time is about the same whether 100,000 pounds or 200,000 pounds of milk a day go through.

(c) A large plant can manufacture all or more of the milk solids into their most valuable form; in other words, it can utilize byproducts more efficiently.

(d) A large plant can often employ a more competent manager than small plants can. Managers are all important in achieving success, since skillful management can reflect itself in lower operating costs, better quality of products, and more skillful marketing.

(e) Standardization and improvement of products are usually easier for a large plant. Brand names can therefore be adopted if this type of sales program seems wise.

(f) A plant of this type is likely to have better and more types of processing and storage facilities. Quality improvement and plant efficiency should result.

(g) The productivity of labor may be increased by greater specialization. In other words, a larger group of employees can result in a greater division of labor and more efficient use of labor. Management consultants estimate that there are very few plants whose productivity is above 60 percent when employees are paid on an hourly basis. Many of the larger plants are instituting incentive plans and productivity is near 100 percent. This is a real boost for operational efficiency.

(h) Fieldman services can be improved and with it milk quality. Thus the plant can improve and control the quality of the milk received, and in turn maintain high quality in the finished product.

(i) Shipping and marketing costs can frequently be reduced because of larger volume. The sheer size of the operation also assists in acquiring and retaining sales outlets and in increasing the bargaining power of the organization.

(j) Plants of this type and size can afford a well-equipped laboratory essential for quality control and minor research. This can be essential to success.

Mergers and consolidations can, of course, help develop these larger scale multiple product plants. The advantages can have an important impact on operational efficiency.

CONCLUSIONS AND RECOMMENDATIONS

On increasing operating efficiency of milk and dairy products processing plants

There are many opportunities for increasing efficiency of operations in dairy plants, large and small. Plants at any point in the range of plant sizes show a wide range in overall labor efficiency, or in the efficiency of any given operation. Often an observer from outside an organization can see opportunities for increased efficiency which the management of the organization is overlooking.

Qualified marketing specialists in State departments of agriculture can provide a service of this sort.

Where requests are made by interested groups and consolidation can result in more income to the farmers, marketing people should assist in this work. They can assist, also, in consolidating sales for a group of small plants where a national brand of quality might be developed.

GRAIN

Work Group Sessions

IMPROVING OPERATIONS OF LOCAL ELEVATORS

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What can be improved about local elevator and feed mill operations? The local manager is faced with several problems of operation which affect the profitability of his business. Among these are:

1. The use of outmoded facilities.
2. The seasonality of his business.
3. Technological advancements in agriculture.
4. The changing character of management decision making.

It is a comparatively easy job to design new facilities for efficiency of operation. It is more difficult however to remodel old facilities and realize a better use of labor and equipment. The manager however should keep his facilities under a constant surveillance for opportunities of modifying his old facilities to meet the stepped-up requirements of today's elevator and feed business. Those who work with the grain and feed industry can be of assistance to local managers by counseling with them as they make plans for changes. He can assist by offering suggested alternatives for changing of facilities, help gather information on the cost of such improvements, and assist in calculating the benefits to be derived from these improvements. He may be of service simply by raising questions as to the advisability of certain changes. For example, must an additional mixer be so located that the additional volume which it permits be offset by the inconvenience caused by its location?

The problem of seasonality in his business challenges the local elevator and feed mill manager to make good use of his labor during slack seasons. Most managers like to keep their key workers throughout the year because they are not easily replaced on a seasonal basis. Maintenance and repair work around the plant appears to be one of the principal methods managers use to employ workers during the slack periods. A possible way of meeting this seasonal challenge is the addition of services or lines of merchandise which do not seriously compete with the peak seasons in his regular business. Such additional items as outside feed selling and servicing, seed cleaning and treating, fertilizer sales, distributing farm chemicals and handling a complete line of farm supplies offer opportunities for increasing business volume without materially increasing the overhead of labor force.

Technological improvements in agriculture are bringing ever increasing demands for services to the local elevator and feed mill. We have seen the harvesting of the wheat crop reduced in time span from several weeks under the old binder and thrasher method to a few days with the new self-propelled combines. We are experiencing a similar technological change in the harvesting of corn. The increased use of the picker-sheller and the corn combine are bringing additional demands upon the local elevator for faster handling of the corn crop, increased storage facilities and increased drying facilities. New developments in livestock feeding emphasize the problem of mixing feed with minute amounts of additives and medical ingredients which need to be almost perfectly distributed through the feed. The exacting requirements for getting the maximum rate of growth in different types of livestock require the feed mill manager to keep abreast of the very latest information in feed formulation. The addition of such ingredients as molasses, fat, and phosphoric acid to feed necessitates that the feed mill have the proper equipment and sufficient knowledge for handling these ingredients and incorporating them into the feed mix satisfactorily.

Managerial problems themselves come with an ever-increasing tempo. The manager finds that he must supervise personnel with higher degrees of skill. He must provide facilities and arrange work methods that will efficiently utilize this higher price labor and competition dictates that he needs to be an astute student of the business scene, especially in his buying and selling practices. Assisting the manager in making the best use of his time as a manager is a real service to him.

Another way in which important assistance can be rendered to local managers and feed mills in improving their operations is to assist them in taking an inventory of present work allocations and methods. In many instances simply finding out how they do it will be suggestive of methods of improvement. (See Purdue Bulletin 639 for details on a study of this kind.) Two major categories of improvements may result from a study of the time required for the different operations throughout the day and the methods employed in these operations. One of these improvements is that delay time can be identified and this otherwise idle time can be put into productive use. The other is that a matching of the time required and the methods used for certain operations may suggest short cuts that will reduce the amount of time required per unit and result in an improvement in labor efficiency. Here are some examples of improvements that have been developed as a result of study of work times and methods.

1. Bolting a small tab of belting material on the approach side of the cradle hoist reduced the time for adjusting the cradle hoist by 30 seconds.

2. Substituting a cradle hoist for individual wheel hooks reduced the time for this work element from 2.45 man-minutes to 1.65 man-minutes per customer.

3. Providing a box for discarding tags and strings from supplement sacks near the feed mixer saved 20 seconds and 20 steps per bag at one installation.

4. Storing the supplement near the mixer cut the time for moving the supplement to the mixer by about 50 percent in several elevators.

5. Handling feed in bulk instead of in sacks reduced the handling time per ton from 12 minutes to 4 minutes.

6. The use of an automatic scale cut weighing and recording time by 1/3.

7. Dumps large enough to match grinding and mixing equipment can speed up the receiving and dumping operation.

8. Remote control screen changing was done in one-fifth the time required for a man to go to the basement and change grinding screens manually.

9. See list of jobs for receiving operations, attachment A.

A new method of handling the feed grinding and mixing business which has gained considerable attention recently is the grain bank. The grain bank is an arrangement whereby the farmer stores corn with the local feed mill to be later withdrawn in the form of mixed feed. Many variations of these grain bank arrangements exist but basically they are designed to perform at the feed mill services that were once performed by the farmer himself on the farm. The mill may arrange to haul the corn to the mill, store the corn, dry the corn, process the corn, mix with proper supplements and deliver back to the farm. Sometimes the mixed feed is delivered directly into the feeders in the feed lot. The attractive part of arrangements such as the grain bank is that it saves time for both the farmer and the feed mill manager. The farmer can haul his corn or have it hauled to the elevator at his convenience at irregular intervals. Then as he needs feed he simply makes a phone call to the feed mill specifying the number of tons, the formula and time he wants the feed delivered. On the other hand, this method gives the feed mill manager some flexibility in processing the corn and the feed. Within the time the farmer allows for delivery of the feed, the mill manager may be able to even out many of his rush and slack periods. The charge for these services can usually be priced at a level so that they will carry their own load as well as help reduce the overhead on other phases of the business. There are some problems connected with the grain bank arrangement but they can be adequately solved in most instances.

A fourth area in which we may render assistance to managers of local elevators and feed mills is that of helping the manager improve the use of his management time. One of the approaches we used to get at this problem of improving managers' time was to find out how managers actually spent their time. We studied several Indiana elevator and feed mill combinations to identify the items that claimed the managers' time between the time the business opened in the morning until it closed at night. We found that managers generally knew what they would be doing during the day's routine but that even the best of them were at a loss to supply the details. Time studies of managers' activities revealed the variety of incidents and duties that claimed the manager's time and attention during his working day. During a typical one-hour period it was found that one manager performed 27 different items of work. The manager contacted several customers, weighed four loads of feed, made out several tickets, ran three tests on grain, gave directions to help in the feed mill, answered the phone several times, described location of customer residences to feed truck drivers, and made a couple of attempts at some study and planning during this hour. Business was admittedly a little slow this day. However, it was obvious to see that with all these different items of work claiming the time of the manager he had little time for management in the sense of planning and organizing his business. (See schedule of work items, attachment B.)

In another instance we observed that the manager took advantage of the "coffee break" period to do some good customer relations work. During this brief period when several customers were in the office, he was able to survey the conditions in the community, discuss a few recommended practices, and one specific feeding problem with this group of customers. It appeared to be appreciated by the customers and it helped the manager to get a feel of his customers' pulse. When a manager is not burdened with tasks that could with adequate planning be delegated to others he can find more time for this kind of customer relation work.

In preparing a check list of duties for elevator and feed mill managers we had, with the help of advice from several managers, what we thought was an all-inclusive list of their activities. In our actual time studies, however, we found out that we were forced to include 20 to 30 percent of the managers' time in a catagory labeled, "other work." This meant that even with the advice of several managers on formulating the list of jobs which they did, we found approximately a fourth of their time which was claimed by unanticipated duties. Many of these duties, among which were listed burning trash and filling the soft drink machine, could easily have been done by other employees and thus saved some of the day's time for real managing.

We found that elevator and feed mill managers spent about 85 percent of their time in four types of work--office work (mostly clerical) 40 percent; handling customers, 20 percent; giving instructions, 16 percent; and handling tickers, orders, or statements, 9 percent. With schedules as tight as this, managers have little time to manage. Cultivating the art of delegating responsibility, studying your day's activities to see what you do and what can be eliminated, and concentrating on the most important problems rather than routine items, will gain needed management time. Time is of the essence to managers. It is their most valuable resource. Simply by taking time to think and figure, you may be able to help a manager increase his volume of business, cut his costs, improve his buying and selling practices, and help him increase his profits.

Attachment A

Standard Time Requirements for Performing Receiving Operations for Feed Grinding and Mixing Under Assumed Conditions, Six Selected Elevators, Indiana, 1950 1/

Work element	Time per element	Elements per load	Time per load	Percentage of total time per load
	Man-minutes	Number	Man-minutes	Percent
Unloading 2/	2.424	3/ 1.000	2.424	31.8
Punch down grain in conveyor	1.513	0.448	0.678	8.9
Sweep around dump	0.614	0.799	0.491	6.4
Open tailgate	0.388	0.686	0.266	3.5
Sweep out vehicle	0.603	0.313	0.189	2.5
Close tailgate	0.348	0.495	0.172	2.3
Empty sacks of grain	0.713	0.209	0.149	2.0
Loosen grain in vehicle	0.361	0.349	0.126	1.7
Talk to customer on business	0.455	0.275	0.125	1.6
Start machinery	0.198	0.519	0.103	1.4
Open dump	0.077	1.180	0.091	1.2
Change spouting with manlift	0.667	0.142	0.095	1.2
Stop machinery	0.213	0.394	0.084	1.1
Unload sacks of grain	0.752	0.100	0.075	1.0
Change spouts - main floor	0.216	0.287	0.062	0.8
Take empty sacks to mixer and dump	0.303	0.179	0.054	0.7
Check and change bins	0.480	0.113	0.054	0.7
Help unhitch wagon	0.568	0.046	0.026	0.3
Chock vehicle	0.086	0.268	0.023	0.3
Untie grain sacks	0.414	0.031	0.013	0.2
Remove chock	0.108	0.146	0.016	0.2
Remove empty sacks from vehicle	0.340	0.048	0.016	0.2
Remove tools from vehicle	0.142	0.086	0.012	0.2
Help hitch wagon	0.362	0.011	0.004	0.1
Replace tools in vehicle	0.100	0.061	0.006	0.1
Delay for grinding	5.057	0.280	1.416	18.6
Delay for shelling	2.842	0.152	0.432	5 7
Delay for vehicle to drive in	0.417	0.410	0.171	2.2
Delay for unloading	0.546	0.218	0.119	1.6
Delay for vehicle to pull out	0.482	0.145	0.070	0.9
Total	---	---	7.611	100.0

1/ Conditions assumed apply to number of elements per load only. Elemental times are standard times as explained earlier. Frequencies of elemental occurrence per load are generally those definitely established for elevators studied. Where frequencies were highly variable, a realistic assumption of the frequency was established from observed conditions.

2/ Method assumed is most frequently used one - individual wheel hooks.

3/ This assumes that all vehicles were dumped with the hoist. Actually, elevator personnel helped unhitch and dump trailers on about 9 percent of the total number of loads and shoveled grain off 4 percent.

ATTACHMENT B

HOW FEED MILL MANAGERS SPEND THEIR TIME --- THREE 1-HOUR EXAMPLES

Case No. 1

00-Customer-discuss crop
05-Customer-check account
07-Type statement
10-Weigh
11-Advise driver
12-Advise office help
13-Weigh & record
14-Customer-test corn
16-Advise drivers
18-Write tickets
19-Discuss tickets-GH & MH
24-Customer
25-Customer-test corn
27-Check haul ticket
28-Study reports
31-Visit
32-Advise mill help
36-Study reports
40-Phone
41-Study reports
47-Customer-visit
48-Advise mill help
50-Adjust feed prices
53-Test corn-N.H.
54-Advise mill help
55-Customer-inform
58-Get market report
60- " " "

Case No. 2

00-Customer-settlement
05-Salesman
14-Bill RR car
22-Phone
26-Customer
27-Phone
29-RR agent
31-Study reports
40-Phone
41-Advise drivers
43-Phone
45-Customer-visit
47-Phone
50-Test corn
51-Customer
55-Customer
58-Salesman
60- "

Case No. 3

00-Advise mill help
03-Check records
06-Weigh
07-Ticket
08-Check records
17-Advise mill help
20-Customer
25-Weigh
26-Customer
27-Customer settlement
29-Customers-visit
43-Advise mill help
51-Customer
53-Advise mill help
60- " " "

FACILITY AND EQUIPMENT NEEDS FOR EFFICIENT GRAIN HANDLING

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Efficiency seems to be the key word these days in every type of business, and in agriculture it is very noticeable from the contact farming systems all the way through the various marketing channels to the consumer. Feed mills and grain elevators, if they are not already efficient, must become so to survive in this highly competitive field.

For the discussion of the subject assigned me, "Facility and Equipment Needs for Efficient Grain Handling," I have classified the procedure into five steps (1) Receiving; (2) measuring both quality and quantity; (3) storage; (4) quality improvement; and (5) out movement.

This discussion will begin as the grain enters the receiving yards of the local grain elevator or feed mill. I have a picture here of trucks lined up, waiting to be unloaded, which was taken about 8 years ago; and even though we might still have trucks lined up in the receiving yards even now or even this year, they are not lined up for nearly as long a time; and you will not see any--or if any, a very few--truck loads of bagged grain as you see in this picture. Bagged grain had to go, not only for efficiency in harvesting, but also in marketing. Where it takes from 30 to 45 minutes to unload a truckload of bagged grain, only 5 to 10 minutes are required to unload the same amount of bulk grain. As this second picture shows, the change in harvesting from the use of bags to the system of bulk, has brought about greater efficiency at the local elevator, resulting in less delays in unloading. Where once the bottleneck in moving grain to market was only at the local elevator, it is now at the terminal elevator as well. Naturally, I am speaking from my experience in Virginia, and this might not be true in other areas.

Harvesting equipment and harvesting practices need to be reviewed in discussing the assigned subject; just as much so as in the military, the enemy's potential needs to be evaluated. In my area, grain is being harvested and marketed in less than one-half the time of a few years back. Instead of the grain being cut and shocked in the field for later thrashing and marketing, most of it is now harvested with the combine, picker or picker-sheller; and the portion for commercial sales is brought straight to the market from the field. This has increased the volume for the local grain handler during the harvest period, which has increased his efficiency in some respects and has added to his problems in other ways. He now handles more grain in a short period of time, but then his slack periods are longer.

Classifying the product, with each load varying in moisture content, and evaluating the worth of the grain less the add mixtures of weed seeds and chaff, is another added responsibility which has increased as harvesting practices have changed. For example, the moisture content of corn offered for sale has continued to increase as harvesting practices changed from the shock to the picker, and now the picker-sheller. A few years back 17½ percent moisture was top for marketing corn. It moved up to 20 to 22 percent as the picker came in use; and now with the picker-sheller, corn containing 25 to 30 percent moisture when marketed is quite common, with some people advocating 35 percent moisture to prevent harvest losses due to shattering. Corn containing moisture of these proportions demands tremendous care in handling. Often any delay in drying high moisture corn results in quality deterioration.

Where the drying facilities of the local grain handler were adequate last year and shelling inadequate, this year it was reversed due to the increased use of the picker-sheller. I have presented to you some of the problems in grain handling brought about by changes in harvest machinery and practices.

Now let's look at the five points mentioned at the beginning.

Receiving

Facilities and equipment are needed for convenient and fast receiving to prevent long delays in getting unloaded, with a minimum of labor. I don't believe we have a single major grain handling facility in Virginia now that is not equipped with facilities to raise the truck for easy unloading. Grain handlers who hesitated in providing these facilities because of the cost, soon changed their minds when farmers began changing dealers, based on whether the dealer had a truck lift or not.

Weighing the load has always been a problem where scales are not properly located. The platform scale that will weigh the entire truck, loaded and empty, seems to be most desirable. It not only provides weighing the entire load in one operation, but it also makes it easier for the farmer to check his weight, creating more confidence in the weight received.

Also sampling and analyzing the grain for quality before unloading can be accomplished, with the grade representing the lot as weighed. This grade information before unloading seems to be very essential, not only for efficient binning, but also it allows time for both parties interested in the transaction to agree on price adjustments, if it be necessary, before the identity of the grain is lost. Elevator legs of sufficient capacity to move grain as fast as it is received, plus additional legs and scales to move the grain out or through the dryer and cleaner without affecting the continuous in-flow of grain are necessary.

I have known elevators, and you probably have too, which could do only one job at a time -- either operate the dryer, run the cleaner, transfer from one bin to another, load out or receive only one kind of grain at a time. One additional leg, a holding bin or another scale could correct this difficulty. A small local elevator handling from 10 to 20 times its capacity, must be equipped with these duplicate handling facilities for efficient operation. Sufficient number of bins for economical separation of the various kinds and quality of grain as received, plus enough bins to take up the lag in conditioning and moving the grain out, must be provided if the movement "in" is to be continuous without long delays.

Measuring Quantity and Quality

I have already touched on the necessity for accurate measuring devices for determining both quantity and quality of grain when received. The grading service, as described above, completed before the grain reaches the unloading pit, is valuable when the grade and the weight are of the same product. So often, with inside scales only, grain is cleaned before weighing, making it impossible to adequately classify the grain for planned binning or price adjustments. If the grade is questioned a recheck is not possible. With grain moving to market directly from combines and pickers or picker-shellers, price adjustments for each lot are almost a necessity.

Onions in wheat alone result in discounts of 25 cents per bushel and in some instances up to as much as 40 cents per bushel when it is considered only fit for feed uses. Moisture in corn is more of a factor in the early season when all corn carries excess moisture. Foreign material in soybeans, varying in amounts, results in weight adjustments and cleaning charges to more than a few cents a bushel. Recognized standard grading equipment and grading procedures for accurately classifying the grain as it moves through market channels, should not be slighted.

We believe this service provided by us in Virginia to our farmers and dealers has brought stability to our markets with distribution of profits all along the line with the farmer receiving higher prices than he would if this official grading service was not available. About two years ago we made a check of prices received and found that in areas where no official grading was furnished, farmers were averaging about 10 cents a bushel less for their wheat than farmers in areas where official grading was provided.

Storage

For efficient grain handling storage should be divided into a number of bins for binning grain of varying qualities separately. The number of bins will vary according to the type and condition of grain handled. I am of the opinion that grain handlers should have enough bins to separate wet corn according to moisture content rather than throwing all corn to be dried together in the same bin.

With the discounts in our area for garlicky wheat, based on the number of onions in a 1,000 gram sample, it would seem advisable to have enough bins to separate according to the breakdown of the discount schedule. The prevailing schedule in our area changes with maximum of 6 onions at 8 cents per bushel discount; 12 onions, 10 cents; 20 onions,14 cents; 30 onions, 17 cents; 50 onions, 20 cents; and 100 onions, 25 cents. The economics in separate binning for any grade factor must be evaluated for each market area.

Quality Improvement

It is a grain handler's responsibility to protect the quality of grain as received and to improve it when necessary. Drying facilities, which are now more essential for efficient grain handling than ever, should be used primarily to protect the natural quality of the grain rather than to improve it. I guess in some instances of grain beginning to deteriorate, artificial drying may improve the quality as well as check further deterioration. However, so often the grain handler seems to be overconfident of the improvement possibility and becomes too careless, allowing his grain to go out of condition permanently. The grain handler should have adequate drying facilities to protect the quality of grain as received.

An aeration system, moving natural air through grain by force, is gaining in popularity, not only for cooling grain to safe storage temperatures, but also for increasing the length of safe storage time for wet grain. With an aeration system, drying efficiency can be doubled.

Another piece of equipment - the grain cleaner - might be considered indispensable by some people and of no value by others. I don't believe its use in receiving grain has been entirely satisfactory. So often a grain handler with hopper scales in his plant, will run all grain purchased over the cleaner before it is weighed. The material cleaned out varies from chaff to good salable grain. One year we checked the screenings of wheat from one such grain handler and found the screenings to have a test weight of 52 pounds per bushel. In such case, and in numerous other ways, the cleaner is used to penalize the seller. I think the cleaner has a place in efficient grain handling if it can be used as a scalper for incoming grain, for separating grain that becomes mixed in the elevator and for a minimum amount of screening of grain handler's stocks. My experience leads me to the conclusion that a cleaner used on incoming grain is misused more often than it is properly used.

Recently Mr. J. H. Meek, Director of the Division of Markets and Mr. Brinkley, Commissioner of Agriculture, stated as a policy for people buying grain in Virginia, that when grain is bought or stored on a grade or grade factor basis, both the net weight and the grade should be determined before the grain is cleaned or both determined after cleaning; that the practice of determining the grade before cleaning and the net weight after cleaning as a basis for settlement or storage is considered to be in violation of an act by the 1934 Virginia General Assembly, which prohibits misrepresentation of the grade, quality, and condition of agricultural commodities.

Out Movement

This is just as important as the in movement. Truckers and bayboat captains don't like to wait either. The railroad is different. However, as I have already stated, for a continuous movement in, there must be a reasonable movement out if maximum use is to be made of the elevator and facilities in between the incoming and the outgoing. There should be facilities for loading all kinds of trucks, both open and covered, with a minimum of labor. The same applies for loading boxcars and bayboats. Grain should be sold on a basis of the U. S. Grain Standards, and the quality desired so reflected.

CONCLUSIONS AND RECOMMENDATIONS

On improving management practices in operating local grain elevators and feed mills

Nineteen representatives from nine States and the U. S. Department of Agriculture discussed the various phases of improving management practices in operating local grain elevators, feed mills and seed processors. The work group suggested that consideration be given to the following types of activities:

1. Service work to aid in solving cost and efficiency problems which take into consideration the highly individual character of the organization, plant layout, and equipment in each plant.

2. Need for service work in analyzing plant problems as a basis for making specific recommendation to improve the operation of grain elevators and feed mills.

3. Conduct group meetings on inventory supply and demand situations in marketing areas taking full advantage of current research information available and changes in harvesting and marketing practices.

4. Provide management with information on the most economical methods of handling and marketing grain.

5. Provide assistance on classification according to grade standards on merchandising through demonstrational meetings, short courses, and personal services.

6. Provide guides in individual business, such as outside selling, alternative lines of merchandise, establishment of grain banks for better use of time and facilities during slack periods.

7. Help individual managers analyze their time in decision-making by finding out how they actually utilized their time.

8. Take the leadership in organizing business management schools which demonstrate approved procedures. In connection with this program, the State department would assume the responsibility of enlisting State, Federal, and private agencies to provide subject matter know-how and encourage trade people to participate in these schools.

INSTALLING AERATION SYSTEMS IN COMMERCIAL GRAIN STORAGES

Leo E. Holman
Agricultural Marketing Service
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Grain storage operators have long followed the practice of "turning" grain--moving it through the air--to help maintain the market quality of stored grain. Recent research results and industry experience have shown that aeration systems using motor-driven fans to move air through the stored grain can do a better and cheaper job than that done by turning. Consequently, the use of motor-driven fans for aerating grain in commercial storages is becoming more widespread each year.

Aeration is defined as the moving of air through stored grain at low airflow rates, for purposes other than drying, to maintain or improve its value. Aeration systems are used for such purposes as:

1. Cooling stored grain to prevent or minimize mold growth and insect activity.
2. Equalizing temperatures in stored grain to prevent moisture from moving from warm to cooler grain.
3. Removing odors from stored grain.
4. Applying fumigants to stored grain.
5. Holding moist grain in storage for brief periods.
6. Removing small amounts of moisture during an extended period of storage.

Aeration should be advantageous wherever, and whenever, storage operators now practice turning of stored grain. It is especially adaptable to flat storages, converted oil tanks and similar storages where it is difficult to turn the grain. In fact, without aeration longtime storage in flat storages is impractical in many areas. The Commodity Credit Corporation recognizes this fact and in many areas will not approve flat storages as being suitable for storing government-owned grain unless they are equipped with adequate aeration systems.

The storage operator must consider several points in making a decision as to whether or not to install an aeration system. If the grain is stored for only 1 to 3 months, and not turned, aeration may not pay. Or, if the storage is in an area where grain temperatures are not above 70° F. when stored, and where moisture migration and accumulation is not a problem during the winter months, aeration may not be needed. Aeration does not permit the visual inspection of grain that is possible when it is turned. Consequently some operators will turn grain occasionally although using aeration. It is desirable to install and use reliable grain temperature indicating equipment in connection with aeration systems.

With aeration, the grain is not moved and thus the wear and tear on both the grain and the grain handling machinery is reduced and losses due to shrinkage and increases in dockage caused by turning are minimized. Aeration also makes possible the use of 100 percent of the storage space, or nearly so, as few, if any, empty bins are needed for turning the grain. Aeration also provides a practical and economical means of fumigating stored grain without moving the grain.

The small amount of air used for aeration is not costly to provide. Airflow rates from 1/50 up to 1/4 cubic feet of air per minute (cfm) per bushel are suitable; the most commonly used rates range from 1/20 to 1/10 cfm per bushel.

Information available from storage operators and from research studies indicates that the total annual cost for aerating stored grain ranges from 1/4 up to 1 cent per bushel depending upon the type of storage, the kind of grain, and the hours of operation required to satisfactorily aerate the grain. In comparison, information from similar sources indicates that the total annual cost for turning grain (up to 4 times per year) can range from 3/4 up to 3 cents per bushel. Therefore, an annual saving of from 1/2 to 2 cents per bushel should be possible by aerating grain as compared to turning grain.

Aeration is usually accomplished by drawing (pulling) atmospheric air downward through the grain and exhausting the air through the fan. In the warmer Southern areas, where moisture condensation on cool grain near the upper surface is no problem, there may be some advantage in forcing (pushing) the air upward through the grain. Then any heat trapped under the storage roof is moved out without passing through the grain. There is little or no difference in power requirements for either of the two methods with a properly designed aeration system. Most fan assemblies can be changed on the aeration system to either draw or force air as the operator desires.

Aeration ducts for distributing the air through the grain are as important as the fan used for supplying the air. The openings supplied for passage of air between the duct and the fan, the amount of cross-sectional and surface area provided in the duct, and the strength of the duct should be based on sound engineering principles and recommended practices. Currently aeration ducts generally are installed on the floor of the storage. Most ducts in use are circular or semi-circular with perforations uniformly spaced over their surfaces. Research is being conducted on other types that may have certain advantages. For example, there is considerable interest in a "cross-flow" system for upright storages where aeration ducts would be installed vertically against the inside walls. This arrangement provides a relatively short path for the flow of air and permits higher airflow rates with the same power required for floor systems.

Maintaining the market quality of stored grain by aeration involves the movement of atmospheric air of acceptable temperature and relative humidity through the grain. With summer-stored grain, fans generally are started as soon as storages are filled if atmospheric conditions are suitable. Grain temperatures should be lowered as soon as possible to minimize mold growth and insect activity. During the fall fans can be operated when the air temperature is

10 to 15 degrees below that of the warmest portion of the stored grain and when air relative humidity is satisfactory. General storage practice indicates that a grain temperature of about 50 degrees is satisfactory, particularly if grain is to be moved during hot weather. Grain temperatures of 35 and 40 degrees have been satisfactory where grain was not moved during warm weather. As grain cools by zones the airflow must be adequate to move the cooling zone through all the grain within an allowable time limit. There is danger of grain deterioration in that part of the bin cooled last, particularly in warmer climates. The time required to move a cooling zone through stored grain mainly is dependent upon the airflow rate used and the amount of cooling resulting from evaporation of water from the grain. For example, with 1/10 cfm per bushel, and some evaporative cooling, from 3 to 5 days generally are required; with little or no evaporative cooling the time may be doubled.

Aeration is becoming an established practice for maintaining the market quality of stored grain and in minimizing handling costs. It should not be assumed, however, that aeration is a "sure-cure" for all grain storage problems. Also, it is emphasized that satisfactory aeration systems require sound engineering design and installation and the application of the known principles of air movement. A system that is not properly designed and correctly operated can be worse than no system; a good system used correctly can mean a saving in operating costs and better quality grain.

CONCLUSIONS AND RECOMMENDATIONS

On installing aeration systems in grain elevators

Sixteen representatives from seven States and the U. S. Department of Agriculture discussed the installation and using of aeration systems in maintaining the quality of grain in storage. The work group suggested that consideration be given to the following types of activities.

1. Service personnel should analyze conditions at grain storage facilities to determine the need for aeration, the kind of aeration equipment to be installed and in working out specific problems connected with the operating procedures of aeration systems. Such factors as temperature and humidity controllers which affect the use of aeration systems should be taken into consideration in developing service programs in this field.

2. Acquaint researchers with local problems in specific areas that need further study.

3. Obtain and use current research findings in assisting in the installation of aeration equipment in order to effectively develop this type of program. It is necessary that a close coordination be maintained by USDA,industry, and State research personnel and the State marketing service specialists.

4. Close coordination be maintained by the State Department with local equipment engineers working on the designing and installation of grain aeration systems.

5. Conduct area meetings with USDA personnel to discuss current research information and to hold short courses and clinics on design techniques for those service personnel, equipment dealers, and others working on the design and installation of aeration systems for farm and commercial grain storage facilities.

6. Provide assistance in designing and installing aeration systems in accordance with the needs of existing and new grain storage facilities.

FACTORS TO CONSIDER IN DEVELOPING AND CONDUCTING A PROMOTION PROGRAM FOR WHEAT

W. W. Graber
Administrator, Kansas Wheat Commission

It is becoming more and more apparent that market development and promotional work of agricultural products is more than the responsibility of one segment of the trade. In our competitive system for a share of the consumer's dollar there needs to be a coordinated effort from the producer, through the processor, through the merchandiser to the consumer.

Agricultural trade groups which have been most successful have followed this pattern of promotional effort. Those who have depended upon the merchant to do all of the selling of their product have generally declined in their share of the consumer's dollar. Wheat is a perfect example of what happens when the producer loses sight of what he is growing wheat for, and is unmindful of what happens to his product after it is sold and he has pocketed the money. He becomes so negligent even in his production of the raw material that he doesn't even raise the raw product for its ultimate intended use, but only for an immediate fast buck.

The results here are very evident. We have produced wheat only for dollars instead of food and markets at home and abroad. As a result, we have millions of bushels of wheat on hand, much of which American millers cannot use, and cash buyers in foreign countries will not buy because of quality and negligence in handling through trade channels. You cannot sell junk while someone else is selling quality products, and neither will your product sell in this competitive market without an organized promotional effort.

Wheat commissions are relative new. The Kansas Wheat Commission is less than 2 years old. Nebraska has had a commission for 3 years, and Colorado since June of 1958. Oregon's Commission, promoting white wheat from the Pacific Northwest has been in operation for 10 years and results of their efforts are phenomenal.

One decided advantage Oregon has is that their type of wheat is not nearly as abundant as ours in the Midwest and, because of geographic location, probably never will be. It is much easier to sell 150 million bushels of wheat than 1 billion 200 million bushels. Our wheat commissions collect from 1/5 to 1/2 cent per bushel from wheat producers for promotional work. Much of this work is of an educational nature. Our first efforts must be directed toward the farmers. A consciousness on their part is necessary to support this program from the raising of wheat on to its final use.

The grain trade needs to be informed about their responsibility and stake in this effort from local elevator through export channels. We are working out programs with millers and bakers, nutritionists, and others to convince the consuming public of the merits of our product. There is a need to know what your problems are and take a positive approach toward solving these problems.

Nutritional needs are to be studied as well as areas where your particular product has been at a disadvantage in the markets. Fads and habits of consumers need a close scrutinization. Adapting what you have to the tastes, desires, facilities, and needs of the consumer is essential. Costs of this type of work should be shared by all who benefit from producer through retailer. What you have to offer must be competitive pricewise with competing commodities.

These promotional efforts must naturally be developed for both foreign and domestic markets. Some of this work can be used in both areas, since much has to be done abroad which doesn't apply to the problems at home. We have and are making studies of some of our problems relating to transportation, nutrition, distribution, education, etc.

Through the Marketing Division of our State Board of Agriculture, we have established a nutritional educational program in Kansas. We have obtained material from the American Institute of Baking and the American Federation of Flour Millers and are distributing this information through the schools of Kansas, to home demonstration agents, nutritionists, women's organizations, etc. We have over 7,000 teachers in Kansas who are using this material in their classes as well as the other groups mentioned. This material is paid for by the Kansas Wheat Commission. It is my opinion that such programs could be carried out in other States. A similar program is being started in heavily populated areas of other States. Any assistance from State Boards of Agriculture in these States would be appreciated. This material does not deal only with bread, but is an overall nutritional program stressing a balanced diet, which certainly does not mean leaving bread in some form out of any meal.

Through Federal and private research laboratories we are trying to develop new foods as well as industrial uses for wheat. We are using Federal as well as State funds for this work.

In cooperation with millers and bakers, studies are being made to disprove arguments that have hurt our trade such as decaying teeth and weight gains because of bread consumption. Naturally this has to be carried out on a scientific basis and with the approval of medical and dental groups. If we had been doing this 10 years ago, some of our decline in bread consumption could have been avoided.

No one except a warped economist would argue the value of advertising as a means of promotion. Months or periods of time, set aside for special emphasis on utilization of certain foods stimulate sales and can greatly increase consumption. "Sandwich Month" has shown definite results in bread consumption. Naturally, "a sandwich isn't made of bread alone," consequently other food areas benefit as well. We are working on projects for increased consumption of wheat as livestock and poultry feeds. Much work has been done in this area by agricultural colleges. These results are being compiled and will be published and publicized.

In foreign market development work, we have made surveys of Western European, South American, and Caribbean countries. We have gained much information concerning our problems in export markets. We have established an office in Rotterdam, Holland and a program is underway to increase purchases of Hard Red Winter Wheat from the United States. Foreign buyer educational programs are being established to teach them how to buy on specification basis and complaints against our products are closely checked.

A similar office is being established in Lima, Peru, for South America. Because of the great need for nutritional education there, a nutritionist has been placed in Brazil to train native personnel and conduct educational campaigns there. A survey is underway in India at present where an office for market development work has been established in New Delhi. Nutritional educational work is desperately needed there. Demonstration buses with mobile kitchens will be used in our effort here. Since very few Indian housewives have ovens or cooking facilities similar to ours, we will have to adapt our products to their tastes and facilities.

We have participated in food fairs in Europe, South America, India, and Japan. Here we have an opportunity to tell foreign people about our products. They can see, feel, and taste our commodity from the raw material to the finished product. Thousands of foreigners have had the opportunity to taste doughnuts and bread made from our wheat. Trade groups have seen the analysis and milling and baking tests of our wheat. We are blending our wheat with their soft wheats in laboratories to find what meets their needs best since they must utilize their own production to the best advantage.

In closing, I would say that a team effort combining producer, processor, retailer, and certainly State Boards of Agriculture, to assist in disseminating information can accomplish much toward better utilization of our agricultural products in the United States and in foreign lands.

DEVELOPING MARKETS ABROAD

James O. Howard
FAS, U. S. Department of Agriculture

As background for your discussion, I will outline the work which the Foreign Agricultural Service is doing to assist in foreign market development. In the latter part of my remarks I will give special attention to cooperative programs using foreign currency and then raise the question of how your agencies might help in foreign market development.

What is FAS doing to help develop foreign agricultural markets?

First, it is gathering marketing facts throughout the world and furnishing them to the people who need them here at home. The backbone of this flow of information is our agricultural attache system which furnishes us with thousands of reports each year from 51 foreign posts. Among these are the reports on wheat which come from almost every area of the world.

Additional information comes from our commodity marketing specialists, who go to the foreign countries and join their specialized knowledge with that of the agricultural attaches to make on-the-spot market surveys. They thus supplement other available information and interpret it within a commodity framework. They also come back and report first hand, as well as in written reports, to the trade groups in this country.

This fact-gathering is not easy. Some countries have good statistics. Some do not have any. Others, particularly in the Iron Curtain countries, do not want us to find out what they have. A specialist in estimating wheat crops was a member of one of the agricultural teams of technicians that recently went to the Soviet Union.

Facts collected by our attaches and marketing specialists throughout the world are pulled together in Washington and checked against all information available from other sources. This is a difficult and painstaking job, and requires much detailed knowledge of the commodity in question.

This world information is published promptly and distributed to the U. S. agricultural trade. Information regarding wheat and other grains goes out quickly and regularly, for instance, by specialized, keyed grain trade mailing lists as one of our Foreign Agricultural Circulars. FAS reports are used not only by groups such as your own and by grain exporters; they also are used by the Secretary in determining acreage allotments and by the Congress in determining legislative needs.

A recent report, for example, shows that U. S. and world wheat production hit a new high this year. Until this last year's record U. S. crop, most of the world increase of recent years was being accounted for by the U.S.S.R., with smaller gains appearing in other areas of Europe and Asia. This year, bumper crops in the United States, the U.S.S.R., and Mainland China boosted production

500 million bushels over the previous high. This world picture, combined with our U. S. situation, accentuates our marketing problem both at home and abroad.

Another function in market development is assistance we give to individual trade representatives abroad. Let's say a U. S. grain exporter wants to open an office in a foreign country. Or a wheat team goes to a foreign country to make a marketing survey. One of the early stops is at the office of the agricultural attache, who gives them detailed information or helps with problems which have been encountered.

A third function in this field is in helping attain free or freer access to foreign markets. Factors affecting agricultural exports are numerous and diverse. They are at work simultaneously influencing -- for good or bad -- the level of exports of all U. S. agricultural commodities. One important market abroad may liberalize trade completely. A few weeks later another important foreign customer may impose quotas, allocate exchange, or take other steps to limit imports.

Our attaches, along with a special section in FAS, Washington, are constantly working on these problems.

A fourth program to promote foreign markets is credit. In recent years, competing countries have been using various kinds of attractive credit to lure business away from us. The United States has met this to some extent by its own loan programs: those of the Export-Import Bank and the Commodity Credit Corporation. Though FAS does not have administrative responsibility for either of these, we do cooperate actively both in Washington and in the field. These programs have been important in wheat exports. We hope, in the future, to shift an increasing quantity of our grants and foreign currency sales to more conventional credit terms such as these.

Programs directly administered by the Government -- which we in Washington call "action programs" -- are a fifth method whereby we assist market development abroad. I am thinking particularly of U. S. participation in the International Wheat Agreement, and of Public Law 480.

The International Wheat Agreement is a unique experiment -- an attempt to develop a new tool to help solve the complex problems which characterize the international economy of a major crop. We have a few other commodity agreements, but none like the Wheat Agreement. As I say, this one is an experiment. It will expire next year. The position of the U. S. Department of Agriculture is that the agreement has been of some help. Ray Vickery, Director of FAS Grain and Feed Division, is now in Geneva, Switzerland, for international discussions about renewing the agreement in its present or some other form.

Public Law 480 provides for four kinds of special export programs: sales for local currency; famine and other emergency relief; barter; and donation to private relief. Most of the wheat which moves under our special export programs goes to countries which lack the dollars to buy all the wheat they need. These countries lack the foreign exchange to buy much of **our** wheat, or wheat from Canada or Australia.

Our special export programs for wheat during the four years of Public Law 480 have been substantial and varied. By categories, they have been as follows:

(1) Sales for local currency - 726 million bushels, (495 Title I and 231 under Section 402 of the ICA legislation).

(2) Bartered for strategic and critical materials - 210 million bushels.

(3) Donated to foreign governments for famine and other emergency relief - 54 million bushels.

(4) Donated to private relief programs and to private charitable organizations, an equivalent of 33 million bushels.

Total of special export programs - 1,023 million bushels.

We are spending a tremendous amount of money to keep agricultural products moving abroad under Public Law 480. Wheat is one of the important commodities financed under it, but many others also benefit substantially.

Let's turn to the last of the FAS aids to foreign marketing -- one in which Mr. Graber's organization and FAS are partners and in which I am directly involved.

The people who drafted Public Law 480 realized that when we sold a billion dollars' worth of surpluses for foreign currencies under its first title, we would wind up with a billion dollars worth of foreign money. What should we do with it? We couldn't bring it home; we could use it only in the foreign country. The largest portion would have to be loaned back to the foreign government for economic development. This was one of the inducements to get the foreign governments to enter into the agreement. But some of it could be saved for uses more directly beneficial to the United States -- the amount varying from agreement to agreement depending on the situation.

The drafters of the law felt that one of these U. S. uses should be to help develop dollar markets abroad for still more of our agricultural products. So, in Section 104 of the act, which lists the many uses which may be made of the foreign currency, the one which heads the list is the simple statement "(a) to help develop new markets for United States agricultural commodities on a mutually benefiting basis."

We get only a small percentage of the total foreign currencies to use for this purpose, but it still looked like a lot of money when we were just starting out, and neither we nor most of the trade groups had any experience in this field. This was four years ago and there was no wheat group at that time in a position to join in this program.

My colleagues here in Washington responsible for developing policy in this program, started out with 3 simple rules which we are still attempting to follow:

1. Private trade has the major responsibility for developing markets. Therefore, FAS will work with and through private trade groups wherever possible.

2. These would preferably be industry-wide trade groups so that FAS would only need to deal with one such group for each commodity, and so the group could speak in foreign countries for the entire industry.

3. The program should be a sharing of expenses between the Government and the trade groups.

Though we have found it necessary to make a few minor exceptions these rules have worked well, and we think that we and the cooperating trade groups have a program of which we can all be proud. When FAS turned to the wheat industry they did not find a group which met these qualifications and which had the money to put into such a program.

Finally, the wheat commissions in Oregon and Washington joined with us for promotion work in Asia. Soon after farmers in Nebraska and Kansas followed the lead. They had first, however, to secure State legislation which imposed a tax on wheat to provide funds to set up State commissions. Colorado later followed through the mechanism of a State marketing order. So far these three States have not been joined together on an informal basis for market development work abroad. Now, however, they are joining together in a more formal organization to be called the Great Plains Wheat Market Development Association. Mr. Clifford Hope, who recently retired from Congress, is Chairman of the Board of this new organization. He made a progress report on the new organization at Hutchinson, Kans., on Tuesday. They hope to get it under way very shortly.

Meanwhile the cooperating State commissions that teamed up with FAS have made progress.

The first project for the Great Plains group involved expanding the market in Italy and Greece. One team from Greece and two from Italy were brought to the Hard Red Winter area, for periods of about 3 weeks each, to observe mills, elevators, storage facilities, and wheat farms. It was hoped that they would be impressed with the high quality of bread-type wheat which can be obtained from the U. S. They were also made aware of the characteristics of our wheat and how it is best used and handled.

Later, during 1957-58 three survey teams of U. S. representatives visited markets in Europe, South America, and the Caribbean. These projects and their findings are described in a recent Foreign Agriculture Circular issued by FAS. During the past summer, the Great Plains group received teams from Portugal, Colombia, Brazil, and India which had much the same general objectives as the Greek and Italian groups.

In recent months, the Great Plains group has set up marketing offices in Rotterdam and Lima. Men have been, or will be assigned to each office to build a necessary staff and establish a closer relationship between the end user abroad and the U. S. producer. Bakers, millers, importers, and Government officials will all be contacted in carrying out the overall objective of maintaining and expanding Hard Red Winter wheat markets throughout these two continents.

Also, in Colombia, the Great Plains group is cooperating with the Millers' National Federation to increase wheat consumption. Baking schools, school lunch programs, and various promotional schemes have been undertaken.

Finally, the Great Plains group has helped in setting up and handling wheat exhibits at trade fairs in Sao Paulo, Cologne, Munich, London, and Vienna.

At the same time, their fellow farm groups from Oregon and Washington have been active in Asia. They have made several survey studies; they have invited teams from Korea, Japan, and India to the U. S. (the latter one, jointly with your Great Plains group). They are carrying out an extensive and highly effective consumption-promotion program in Japan. They have participated in trade fairs in India and Japan. Now they have set up an office in New Delhi to promote wheat consumption in India. The work in India is in cooperation with the Great Plains group.

Let me say a bit more about Japan. In Japan, wheat consumption per person has gone up noticeably (about 4 pounds) in the last several years. Moreover, Japan's imports of wheat have increased substantially. U. S. sales of wheat to Japan for dollars have more than tripled in the last 3 or 4 years. Today Japan is our number one cash customer for wheat. We feel confident that market development work done by the Northwest has helped to bring these things about.

Now, how about participation by State departments of markets and agriculture?

I would rather that you answered this question, but here are some suggestions to start with:

First there is a mammoth job needed to be done of educating farmers of the problems and possibilities of the foreign market. Encourage some of your farmers to follow their products to the port and see how they are handled. Is their grain being kept clean all the way? Talk to exporters or representatives of the importers or to the State and Federal graders. Are the standards adequate for modern needs? What kind of wheat is most desired by our foreign customers? Are the farmers growing this kind? Urge the farm leader to find out whether the terminal facilities at the port are adequate to handle the grain in a proper manner, particularly at the peak harvesting season, and discuss what corrective action, if any, is needed.

Can your State agency help with visiting teams which are brought to this country? If so, contact Mr. Graber or the other leaders in the regional national organizations cooperating with FAS. These visitors need to be educated on the various kinds of wheat we raise and how these fit into the visitors' import needs. They also need to see how we produce and market wheat.

A number of the large wheat producing States have not yet joined either of the two regional groups cooperating with FAS. If your State is one of them, can you help move this along?

Finally, do you have personnel who might be loaned to one of these groups for a short-time assignment either at home or abroad, or who could otherwise cooperate as part of their regular duties? If so, contact Mr. Graber or the other leaders in these programs.

CONCLUSIONS AND RECOMMENDATIONS

On developing and conducting a promotion program for wheat

It is recommended that State Departments of Agriculture concentrate their efforts in grain promotion programs on the following types of activities.

(1) That service personnel investigate programs that may be underway in his particular State to promote the use and consumption of wheat and wheat products and that service personnel cooperate to the fullest with agencies such as: National, State, and county food conferences; extension home demonstration agencies; schools; medical and health associations; and State trade associations. These joint efforts will expand market outlets, increase income to the producers,and improve the diet of the American people.

(2) That the U. S. Grain Standards be tightened to preserve quality of grain moving into commercial channels and grain moving into foreign trade. The group recognizes the problem that Federal supervision officers have in meeting the demands for appeal inspection and close Federal supervision. However, it is recommended that close supervision be given at all inspection points with emphasis on supervision at export facilities. Because of the difference in the quality of grain being certified for export and the quality upon arrival at overseas points, it is felt that closer Federal supervision will tend to eliminate these wide variations in quality. The group also feels that if foreign buyers will buy on specification basis, that they would have more assurance of receiving the quality desired.

(3) That State service personnel develop programs to inform producers, grain handlers, and processors in the production and handling of grain that will meet market demands both domestic and foreign. For example: The farmers should produce the types and kinds of grain in demand and the grain merchandisers should be interested in quality to meet the demands. This information could be disseminated through group meetings, market news offices, newspapers, radio and T. V.

(4) Develop programs that are closely coordinated with the promotional activities of State wheat commissions, State marketing orders, trade associations, and branches of the USDA.

(5) Provide advance information on location of varieties and the quality of wheat and other grain products.

(6) Encourage basic research on utilization and new uses for wheat and other grain products. Implement research findings on utilization and new uses developed by regional laboratories, State agencies, and industry groups as a means of expanding outlets for wheat and grain products.

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At the concluding session each Work Group Leader presented a summary of the conclusions reached by his work group during the three days of the Workshop. The reports of the individual work group sessions which are published in these proceedings and upon which the summaries were based discuss these conclusions in detail.

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CONCLUDING REMARKS

William C. Crow, Liaison Officer
Matching Fund Program
State Departments of Agriculture

We cannot bring this Workshop to a close without expressing our appreciation to a number of people who have contributed so greatly to its success. First, I want to thank Director Stanard, Dave Foreman, and their associates in the Illinois Department of Agriculture for being such gracious hosts and for their handling of all those details which must be properly taken care of if a meeting such as this is to move along smoothly. Henderson May, Bob Harris, and others in the Illinois Department of Agriculture have done an excellent job handling the general arrangements and local publicity, and Miss Olivia Hake, Miss Jane Romack, and Mrs. Jackie Turner, have done a fine job handling the typing and registration, to say nothing about Miss Hake's ability as an entertainer. I also want to express our appreciation to Mr. Jim Bollinger, Manager of the Leland Hotel, his wife who led the group singing, and Mrs. Ida Gianotti who was responsible for the catering. In my opinion the hotel has done an excellent job handling all the details which are so necessary to the success of a meeting of this kind. The Springfield Association of Commerce and Industry provided assistance in the registration, the large sign in the lobby, the Springfield Informational Packet, and a great deal of publicity. Several organizations contributed souvenirs and gifts including the trucks furnished by the International Harvester Company, the pencils by the Franklin Life Insurance Company, the key chains by the Springfield Marine Bank, the Illinois cheese by the Nauvoo Milk Products Company, and the Ry-Krisp to go with it by the Ralston Purina Company. The Illinois Department of Agriculture supplied the Delicious apples, the Illinois Agricultural Association the leather name tags, and the Regalia Manufacturing Company the convention notes. Because the Workshop was being held this week, Mayor Howarth proclaimed this "Agriculture Week" and the Springfield Kiwanis Club held its annual "Farm-City" luncheon. The International Business Machines supplied two electric typewriters for the Workshop, and the Springfield television station WCVS and the Illinois State Journal and Register gave considerable time and space to the coverage of our meeting.

In my opinion this program has been one of our best. This has been due to the efforts of many people. I want to express our appreciation to the members of the program committee, to the large number of excellent speakers who have given so generously of their time, to the leaders of the work groups for their planning and pushing of these group sessions to make them productive, to the chairmen and secretaries of the work groups for the fine contributions they have made, and to the chairmen of our general sessions. Especial thanks are due our good neighbors from Canada for sharing with us their experiences in marketing.

I cannot overlook this opportunity to express the appreciation of all of us to our Advisory Committee for the matching fund program for giving so unstintingly of their time to guide and support this work. Chairman Ballentine, Secretary Freeland, Director Stanard, Deputy Director Carey, and Deputy Commissioner Chick have participated in this meeting from beginning to end. All the States owe a debt of gratitude to these men for their leadership in promoting this marketing service program, and their support and encouragement is deeply appreciated by those of us in the Liaison Office in Washington.

This workshop is the first time to my knowledge that the Commissioners of Agriculture and the heads of their Divisions of Markets have spent three days working together to determine what their marketing program should consist of, how it should be organized, and how to make the matching fund program more effective. We have had 15 State Commissioners and Deputy Commissioners of Agriculture here with us and the heads of the Divisions of Markets of 20 States. Such interest in marketing by these officials should be a great stimulus to the further development of good State marketing programs, and this display of their interest should encourage all who are working in this field.

As you know now, if you didn't know it before, a Workshop is a place where everybody works. Everybody is a teacher, and everybody learns. Therefore, I want to thank each person here for the contribution he has made. The attendance at this, the Sixth National Marketing Service Workshop, has been the largest we have ever had. A total of 190 persons from 37 States, Canada, and the District of Columbia, have registered. We hope you all feel that your time has been well spent. The real value of this workshop will be measured in its effect on your work when you get home. Your people are confronted with many marketing problems. You have a job to do--something worth selling. Let us all get back on the job and see if we cannot make a greater contribution than we have before to their solution.

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